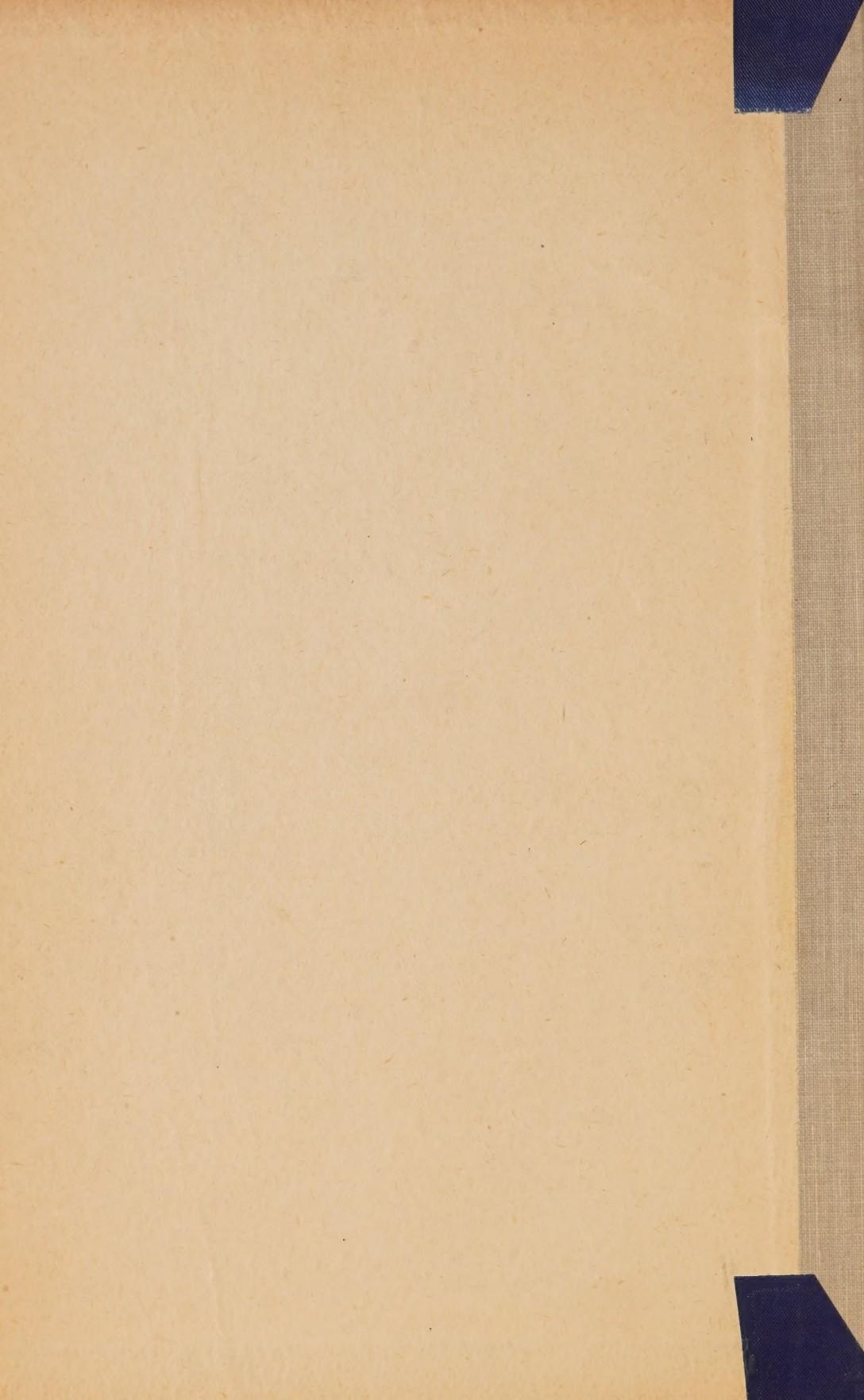


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Report
Minister of Lands and Mines
Ontario
1907





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REPORT

OF THE

Minister of Lands, Forests and Mines

OF THE

PROVINCE OF ONTARIO

For the Year

1907

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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1908.



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Report of the Minister of Lands, Forests and Mines Of the Province of Ontario, for the Year 1907.

*To His Honour SIR WILLIAM MORTIMER CLARK,
Lieutenant-Governor of the Province of Ontario.*

MAY IT PLEASE YOUR HONOUR:

As required by law, I submit for the information of your Honour and the Legislative Assembly, a report for the year ending on the 31st December, 1907, of the management of the Crown Lands of the Province.

CLERGY LANDS.

The area of Clergy lands sold during the year was 82 3-5 acres, aggregating in value \$95.00. The collection on account of these and former sales amounted to \$2,304.89. (See Appendix No. 3, page 6.)

COMMON SCHOOL LANDS.

The area of Common School lands sold during the year was 12 2-5 acres for \$33.00. The collection on account of these and sales of former years was \$13,959.78. (See Appendix, No. 3, page 6.)

GRAMMAR SCHOOL LANDS.

The area of these lands sold during the year was 91 7-10 acres, for \$295.40. The collection on account of these and sales in former years was \$1,774.50. (See Appendix No. 3, page 6.)

UNIVERSITY LANDS.

The area of these lands sold during the year was 1,739 $\frac{1}{2}$ acres, for \$869.76. The collection on account of these and sales of former years was \$1,397.03. (See Appendix No. 3, page 6.)

CROWN LANDS.

There have been sold for agricultural purposes during the year 79,418, 5-10 acres for \$64,225.89. The collection on account of these and former sales was \$69,584.57. There were sold for mining purposes 9,309 3-5 acres for \$1,288,705.75 and collected on account of mining sales \$1,184,719.06. Of this \$1,155,000.00 was on account of the portions of Cobalt and Kerr Lakes, which were sold by public tender.

There were leased for mining purposes 8,194 1-10 acres for \$8,088.12. There was collected on account of mining leases \$21,563.16. There were

3,807 4-5 acres of Crown lands leased for other than mining purposes. The collection on account of these and former leases was \$3,716.31. The total area of land disposed of during the year was 102,656 7-10 acres. The total collections on account of lands sold and leased during the year was \$1,299,-019.30. (See Appendix No. 3, page 6.)

MILITARY GRANTS.

There were 550 certificates issued during the year, authorizing veterans to select their lands, under 1 Edward VII., Cap. 6. This brings the total number issued under this legislation up to 13,550. Location certificates, confirming veterans in the lands selected upon prescribed conditions, were issued to 825, making a total of 3,727. Eight hundred and seventy-five locations were made during the year, nearly all in the District of Algoma, north of the height of land, bringing the number of locations up to 6,095. As already stated 13,550 certificates have been issued and there are in the Department new applications for certificates to the number of 50. Under the amendment to the Act, 1,025 unlocated military certificates have been surrendered to the Crown for the \$50.00 commutation money, making a total of 2,425 disposed of in this way. Patents have issued to 1,044, making a total of 1,305 patents issued to date. (See appendix No. 11, page 44.)

MINING INDUSTRY.

The output of the mines and mineral works of Ontario for 1907 was of greater aggregate value than in any previous year—exceeding the output of 1906 by \$2,618,109. The largest item in the total of \$25,006,492 was the production of silver, of which the mines of the Cobalt camp yielded 10,028,259 ounces valued at \$6,157,871. This rich region has made a rapid development, the first production, 206,875 ounces, being in the year 1904. The total quantity of silver produced at Cobalt mines up to the end of 1907 was 18,088,-256 ounces, valued at \$11,297,812. The shipments of ore to the same date amounted to 22,446 tons, so that the average contents of silver were 806 ounces per ton, worth \$503. The principal mines are the Nipissing, O'Brien, Coniagas, La Rose, Kerr Lake, Buffalo, McKinley-Darragh-Savage, Trethewey, Temiscamingue, Right-of-Way, Drummond, Cobalt Silver Queen, Temiskaming and Hudson Bay, Foster, and Nova Scotia. For the most part the ore is purchased by smelting establishments in the United States, but there are two refineries now in operation in Ontario, one at Copper Cliff owned by the Orford Copper Company, and the other at Deloro, by the Deloro Mining and Reduction Company. Several other refineries are also in course of erection, and concentrating plants are being added by a number of the mines to treat their low-grade ores.

Ores similar to those of Cobalt have been found on the Montreal River, 35 or 40 miles northwest of Cobalt, and more recently on the shores of Lake Temiskaming, about 22 miles southeast of Cobalt. Ontario is now producing one-eighteenth of the total silver production of the world.

Next in importance to silver is nickel, the chief source of which is the Sudbury district. The output of nickel last year was 10,972 tons, having a value in the matte of \$2,271.616. Accompanying the nickel was copper to the extent of 7,373 tons, worth \$1,045,511. From the iron mines of the Province were raised 205,295 tons of ore, valued at \$482,532. Fuller particulars of the mineral production of the Province are given in the report of the Bureau of Mines.

A remarkable feature of the year was the large amount received for sales of mining land, \$1,184,719.06. A very large part of this sum was received on account of the sale of parts of the beds of Cobalt and Kerr lakes. The total revenue from mining sources was \$1,731,720.72.

COLLECTIONS.

The total collection of the Department from all sources was \$3,068,-494.09. Of this amount \$1,184,719.06 was derived from mining lands; \$207,945.06 from royalties; \$1,219,051.32 from woods and forests; \$43,453.35 from supplementary revenue; \$137,768.40 from mining licenses and \$134,-628.73 recording fees. (See Appendix No. 4, page 7.)

DISBURSEMENTS.

The gross expenditure of the Department for all services during the year was \$660,556.33. The principal services were: agents' salaries and disbursements, \$49,316.98; forest ranging, \$64,887.97; fire ranging, \$97,-234.51; mining development, \$60,685.95; forest reserves, \$41,884.72; surveys, \$162,479.91; veterans' commutation, \$46,850; Gillies limit, \$30,686.60; refunds, \$23,621.06; Parks, \$14,675.42; contingencies, \$29,671.71. (See Appendix No. 6, page 9 to 39.)

WOODS AND FORESTS.

The total revenue from Woods and Forests was \$1,219,051.32, consisting of bonus, \$152,222.24; timber dues, \$998,863.15; ground rent, \$65,-084.38; transfer fees, \$2,879.85. (See Appendix No. 4, page 7.)

The financial stringency that prevailed last year was severely felt by the lumber trade. It was difficult to make collections. The banks adopted a restrictive policy and would not make advances, except such as were absolutely necessary to keep organizations together, and tide operators along until conditions improved. Under these circumstances, it became impossible for the licensees to pay their indebtedness to the Department for timber dues, etc., before the end of the year. As there was plenty of security for the indebtedness in the shape of limits, logs and lumber, on which the Department has the first lien, and to insist upon payment would have ruined many and demoralized the trade, it was considered prudent to carry them for the payment of balances due. Accordingly, those who were unable to pay their indebtedness were given extensions of time in whole or in part, and thus a crisis was avoided. In consequence of this action there is about \$500,000 revenue of 1907 uncollected, which will come in, however, during 1908. The stringency which prevailed became more severe towards the end of the year, causing curtailment of operations in the woods, and consequently the output of logs will be smaller in volume than that of last year.

FIRE RANGING.

There were 623 fire rangers on duty during the past summer, including those in the forest reserves. Of this number 360 were employed on licensed lands, half of their wages being paid by the licensees and the other half by the Crown. Along the line of construction of the Canadian Northern, the T. & N. O. Ry., the Grand Trunk Pacific and the Canadian Pacific, 103 fire rangers were on duty. The cost of this service was \$38,-

110.36, which will be refunded by the railways along whose lines the rangers were employed. In forest reserves there were 109 rangers employed costing \$41,884.72. On lands of the Crown in the Sturgeon Valley and elsewhere 51 rangers were on duty at a cost of \$14,497.36. The total expenditure for fire ranging last year was \$139,119.23. No serious fires were reported.

CULLERS' EXAMINATIONS.

Examinations were held at North Bay, Port Arthur, Sault Ste. Marie, Fort Frances and Kenora. Seventy-six candidates were successful at these examinations, and were granted certificates authorizing them to act as cullers. (For list of Licensed Cullers see Appendix No. 51, page 137.)

ALGONQUIN AND RONDEAU PARKS.

The reports of the Superintendents of these parks will be found in Appendices Nos. 49 and 50, pages 134 and 136.

CROWN SURVEYS.

The following Crown Surveys have been undertaken or concluded this year:—

Instructions for subdivision of twenty-three townships were issued but owing to the remarkably wet summer and fall in the north, only nine townships have been completed in time for this year's report. The names of the townships and the respective districts in which they are situate are as follows:—

District of Algoma,—Barker, Colquhoun, Devitt, Eilber, Godfrey, Jamieson, Jessop, Kendrey, Laidlaw, Leitch, Mabee, Macdiarmid, McCrae, McCowan, Mountjoy, Reaume and Staunton. District of Nipissing,—Bayly, residue of Coleman, Glackmeyer, Hanna, Kennedy, and Purvis. Six hundred and six miles of base and meridian lines have been run during the year, of these, one hundred and twenty miles formed part of the district boundary between Algoma and Thunder Bay. one hundred and eighty miles formed the outlines of nine mile townships in the District of Algoma, west of the Missinabie River, one hundred and fifty-nine and one half miles formed the outlines of six mile townships in the Larder Lake region, in the District of Nipissing; twenty-two and one-half miles of base line north of Lake Abitibi in the District of Nipissing, and one hundred and twenty-four miles of outlines of townships in the Temagami Forest Reserve.

The reports of the surveyors of the base and meridian lines in what may be called the Clay Belt in Northern Ontario, as well as those of the subdivisions into lots and concessions continue to bear out the favorable impression of the adaptability and fertility of the soil for agricultural purposes.

The outlines of the blocks of land set apart in accordance with the provisions of Statutes of Ontario, 4th Edward 7th, Chapter 18, along the Thunder Bay branch of the Grand Trunk Pacific Railway to be granted to the said Grand Trunk Pacific Railway have been nearly all surveyed and defined upon the ground. Three hundred and eighty-nine and one half miles of outlines having been run, leaving one block yet to be surveyed.

A number of Timber Berths in the Districts of Algoma, Nipissing, Rainy River and Thunder Bay have been surveyed during the year.

Several other minor surveys have also been performed.

The surveyors' reports so far as received and examined will be found in appendices 18 to 48 inclusive, pages 55 to 131 inclusive.

MUNICIPAL SURVEYS.

On the petitions of the Municipal Councils of the townships of Garafraxa, Hinchinbrooke, and town of Blind River, instructions have been issued for the survey of the original road allowance between parts of concessions three and four in the township of Garafraxa; for the survey of line between certain lots in the third concession of the township of Hinchinbrooke and for the definition of a block of land in the Town of Blind River.

The Municipal Survey of the road allowance between the rear of lots on the Middle Road, and the third concession, extending from the town line between the townships of Aldborough and Orford northwesterly through part of Orford has been confirmed under the provisions of the Revised Statutes of Ontario, 1897, chapter 181, sections 14 and 15, such survey being final and conclusive.

The particulars relating to these surveys will be found in appendices Nos. 14 and 15, pages 50 and 51.

MINING AND OTHER SURVEYS.

The Mines Act requires that applicants to purchase or lease mining lands in unsurveyed territory shall file in the Department, surveyor's plans (in triplicate) of their proposed mining locations and mining claims, with field notes and descriptions by metes and bounds, before any sale or lease can be carried out, and under Orders-in-Council, dated 23rd January, 1892; 3rd December 1892; 29th April, 1886; 22nd September, 1893; 26th February, 1906; 2nd October, 1907; 7th November, 1907, applicants to purchase islands, or locations for agricultural purposes in unsurveyed territory, are required to file suveyor's plans (in triplicate) of their locations or islands as the case may be, with field notes and descriptions by metes and bounds; the locations to be of the form and size, wherever practicable, prescribed by the Mines Act, together with the necessary affidavits as to their being no adverse claim by occupation or improvement, etc.

Under the above Act, Orders-in-Council and Regulations, in the districts of Parry Sound, Nipissing, Algoma, Thunder Bay, Rainy River, an area of 15,534 3-10 acres has been sold and patented during the year, for which the sum of \$1,127,393.11 has been received; and an area of 3,527 3-10 acres has been leased at \$1.00 per acre for the first year's rental.

F. COCHRANE,
Minister.

Department of Lands, Forests and Mines,
Toronto, December 31st, 1907.

APPENDICES.

APPENDIX No. 1.
RETURN of Officers and Clerks of the Department of Lands, Forests and Mines for the year 1907.

Branch.	Name.	Designation.	When appointed.	Salary per annum.	Remarks.
Hon. F. Cochrane.....	Minister.....	1905, May 13.....		\$ 6,000 00	
Aubrey White.....	Deputy Minister.....	1882, Jan. 1.....		3,500 00	
George Kennedy.....	Law Clerk.....	1872, Feb. 1.....		2,500 00	
Geo. W. Yates.....	Minister's Secretary.....	1899, Feb. 26.....		1,700 00	
E. S. Williamson.....	Secretary to Department.....	1889, May 1.....		1,550 00	
Janet Garvie.....	Stenographer.....	1905, Jan. 1.....		650 00	
M. M. McCrea.....	do.....	1905, Oct. 9.....		550 00	
J. J. Murphy.....	Chief Clerk.....	1872, May 1.....		2,000 00	
Walter Cain.....	Clerk.....	1903, Mar. 6.....		1,400 00	
W. R. Ledger.....	do.....	1894, Feb. 5.....		1,050 00	
Selby Draper.....	do.....	1903, Jan. 1.....		1,100 00	
May Bengough.....	Stenographer.....	1896, Oct. 23.....		600 00	
W. A. Collins.....	Clerk.....	1906, July 1.....		800 00	
S. A. Platt.....	do.....	1905, Oct. 9.....		750 00	
J. Oram.....	Stenographer.....	1906, June 19.....		500 00	
R. H. Browne.....	Chief Clerk.....	1900, Mar. 2.....		1,550 00	
R. T. Winter.....	Clerk.....	1904, Jan. 13.....		750 00	
E. F. O'Neil.....	Stenographer.....	1904, Nov. 9.....		550 00	
Geo. B. Kirkpatrick.....	Director of Surveys.....	1886, Jan. 30.....		2,400 00	
W. F. Whitson.....	Surveyor and Draughtsman.....	1892, Sept. 1.....		1,900 00	
W. F. Lewis.....	Clerk.....	1872, Feb. 5.....		1,150 00	
D. G. Boyd.....	Draughtsman.....	1897, Sept. 27.....		1,300 00	
E. M. Jarvis.....	Clerk.....	1904, Oct. 19.....		950 00	
J. B. Proctor.....	do.....	1897, Jan. 15.....		950 00	
H. Treby.....	Draughtsman.....	1904, Jan. 13.....		950 00	
M. H. Kirkland.....	Stenographer.....	1904, Nov. 23.....		550 00	
J. H. Patterson	Draughtsman.....	1906, April 21.....		750 00	
F. C. Blanchet.....	do.....	1906, May 15.....		750 00	
C. S. Jones.....	Chief Clerk	1890, May 22.....		1,800 00	
C. E. Burns.....	Clerk	1900, April 19.....		1,000 00	
W. S. Sutherland.....	do	1902, Jan. 13.....		1,100 00	
W. Carel.....	do	1904, Jan. 15.....		1,000 00	
A. E. Robillard	do	1894 May 8.....		800 00	

Woods and Forests	J. A. G. Crozier	Chief Clerk.....	1867, Dec. 1.....	2,000 00
	Kenneth Miller	Clerk.....	1891, Nov. 1.....	1,200 00
	J. B. Cook	do	1898, Aug. 1.....	1,350 00
	H. Gillard	do	1900, April 9.....	1,100 00
	F. J. Niven	do	1903, Jan. 1.....	950 00
	W. F. Trivett	do	1904, Jan. 13.....	900 00
	R. H. Hodgson	do	1904, Nov. 23.....	850 00
	Jno. Houser	do	1905, Oct. 2.....	800 00
	Chester Dies	do	1905, Oct. 2.....	750 00
	A. J. Lamb	do	1906, Aug. 23.....	750 00
	Florence Lennon	Stenographer.....	1905, Oct. 4.....	550 00
Accounts	D. George Ross	Accountant.....	1861, April 15.....	2,100 00
	E. Leigh	Clerk.....	1873, Dec. 20.....	1,200 00
	H. M. Lount	do	1904, Jan. 13.....	1,150 00
	H. E. Johnston	do	1905, Oct. 2.....	950 00
	H. G. Harris	do	1905, Oct. 2.....	760 00
	C J. Clark	do	1905, Oct. 2.....	750 00
	Frank Yeigh	Registrar.....	1880, Mar. 1.....	1,500 00
	H. Cartwright	Clerk	1893, Oct. 1.....	1,200 00
	Thos. W. Gibson	Deputy Minister.....	1891, June 19.....	3,000 00
	Anne Moffat	Clerk.....	1901, Mar. 1.....	750 00
Bureau of Mines	W. H. Morris	do	1906, Jan. 1.....	750 00
	Ethel Craig	Stenograph'r	1906, Jan. 1.....	600 00
	R. D. Fisher	Clerk.....	1905, Oct. 2.....	950 00
	R. A. Sinclair	do	1906, Feb. 27.....	750 00
	D. H. Barr	Stenographer	1906, Aug. 7.....	750 00
	Flossie McDougall	do	1906, July 23.....	550 00
	H. Brophy	Messenger.....	1893, Oct. 1.....	700 00

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister Lands and Forests.

REPORT OF THE

No. 3

APPENDIX No 2.
List of Land Agents and Homestead Inspectors for the Year 1907.

Name.	Post office address.	District or county.	Date of appointment.	Salary per annum.	Remarks.
Anderson, Ino. H.	Tory Hill	Part of Hastings and Peterboro.....	1905, May 31 ..	\$ 300 00	
Baker, R. H.	Minden	do Victoria.....	1907, Oct. 1 ..	350 00	
Barr, James	Fort Frances	Homestead Inspector.....	1906, Nov. 23 ..	1,200 00	
Belyea, C. W.	Kenora	Part of District of Rainy River.....	1907, Jan. 16 ..	300 00	
Both, Chas.	Denbigh	do Frontenac and Addington.....	1905, Oct. 20 ..	100 00	
Brown, James B.	Bracebridge	Homestead Inspector.....	1905, Julv 28 ..	900 00	
Byers, R. J.	Massey	Part of District of Sudbury.....	1905, July 3 ..	500 00	
Buchanan, Thos.	Thessalon	do Algoma	1901, Nov. 30 ..	300 00	
Burnes, C. W.	Parry Sound	Homestead Inspector.....	1905, Nov. 15 ..	900 00	
Campbell, Wm.	Suratton Station	Part of District of Rainy River.....	1897, Aug. 12 ..	300 00	
Chester, Thos.	New Liskeard	Homestead Inspector.....	1906, June 8 ..	1,200 00	
Deacon, John M.	Mattawa	Part of District of Nipissing	1905, July 8 ..	600 00	
Eastland, T. G.	Apsley	County of Peterboro	1896, July 10 ..	300 00	
Ellis, James	Parry Sound	do District of Parry Sound	1898, Dec. 1 ..	500 00	
Freeborn, Dr. J. S.	Maganstewan	do do	1905, Nov. 10 ..	500 00	
Grills, Jno. J.	New Liskeard	Lake Temiskaming District of Nipissing	1905, July 3 ..	500 00	
Groulx, R. J.	Chelmsford	Homestead Inspector.....	1906, May 7 ..	600 00	
Handy, E.	Emsdale	Part of Parry Sound	1879, July 3 ..	500 00	
Hartlie, Wm.	Minden	do Victoria	1895, Nov. 28 ..	350 00	
Hollands, C. J.	Fort Frances	Town plot of Alberta and Part of District of Rainy River	1892, Oct. 12 ..	300 00	
Hunt, J. H. McK.	Fort William	Homestead Inspector.....	1906, May 12 ..	600 00	
Hugh, Williams	Heaslip	Part of District of Nipissing	1905, July 14 ..	500 00	
Hesson, W. H.	Port Arthur	do Thunder Bay	1903, July 8 ..		Died 30th Sept. 1907.
Keefer, Harold	do	do do	1907, Oct. 30 ..	500 00	
Levis, Jos. A.	Sturgeon Falls	Nipissing	1906, July 3 ..	500 00	
MacLennan, J. K.	Sudbury	do Sudbury	1905, July 3 ..	500 00	
McFayden, Alex.	Emo	do Rainy River	1906, Sept. 8 ..	300 00	
Philion, Jas. A.	Sturgeon Falls	do Nipissing	1907, Sept. 30 ..	500 00	
Powell, Fred. R.	Parry Sound	do Parry Sound	1907, May 31 ..	500 00	
Prince, Adam.	Wilno	do Benfew	1905, July 12 ..	500 00	
Pronger, R. H.	Dryden	do District of Rainy River	1906, May 7 ..	300 00	

Quenneville, Isadore ..	Sturgeon Falls	Homestead Inspector.....	1906, May 7 ..	600 00
Searle, J. S.....	Powassan.....	Part of District of Parry Sound.....	1880, June 17 ..	500 00
Tait, J. R.....	L'Amable.....	do Hastings	1869, May 28 ..	500 00
Wilson, James	Kinmount	do Peterboro	1905, May 31 ..	150 00
Warren, D. B.....	Pembroke	do Renfrew	1905, July 3 ..	300 00
Wright, E. A.....	Warren	do District of Sudbury	1905, July 14 ..	500 00
Whyborne, W. E.....	Marksdale	do St. Joseph Island.....	1905, April 7 ..	200 00
Watson, T. P.....	Englehart	Assistant Homestead Inspector.....	1906, May 10 ..	912 50
Young, H. N.....	Sault Ste. Marie.....	Part of District of Algoma	1901, Nov. 23 ..	300 00

A UBBREY WHITE,
Deputy Minister Lands and Forests.

D. GEO. ROSS,
Accountant.

APPENDIX No. 3.

STATEMENT of Lands Sold and Leased, Amount of Sales and Leases, and Amount of Collections for the year 1907.

SERVICE.	Acres sold and leased.	Amount of sales and leases.	Collections on sales and leases.
		\$ c.	\$ c.
<i>Crown Lands:</i>			
Agricultural	79,418 $\frac{5}{10}$	64,225 89	69,584 57
Mining	9,309 $\frac{3}{5}$	1,288,705 75	1,184,719 06
Clergy Lands	82 $\frac{3}{5}$	95 00	2,304 89
Common School Lands.....	12 $\frac{2}{5}$	33 00	13,959 78
Grammar School Lands	91 $\frac{7}{10}$	295 40	1,774 50
University Lands	1,739 $\frac{1}{2}$	869 76	1,397 03
<i>Leases:</i>			
Mining.....	8,194 $\frac{1}{10}$	8,088 12	21,563 16
Crown	3,807 $\frac{4}{5}$	333 40	3,716 31
	102,656 $\frac{7}{10}$	1,362,646 32	1,299,019 30

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister Lands and Forests.

APPENDIX NO. 4.

STATEMENT of the Revenue of the Department of Lands, Forests and Mines for the year 1907.

SERVICE.	\$	c.	\$	c.	\$	c.
LAND COLLECTIONS.						
<i>Crown Lands.</i>						
Agricultural.....	69,584	57				
Mining.....	1,184,719	06				
			1,254,303	63		
<i>Clergy Lands.</i>	2,304	89				
<i>Common School Lands.</i>	13,959	78				
<i>Grammar School Lands.</i>	1,774	50				
<i>University Lands</i>	1,397	03				
			19,436	20		
<i>Rent.</i>						
Mining Leases.....	21,563	16				
Crown Leases.....	3,716	31				
			25,279	47		
Mining Licenses.....	137,768	40				
Recording Fees.....	134,628	73				
			272,397	13		
<i>Royalties.</i>						
			207,945	06		
<i>Supplementary Revenue.</i>						
Acreage Tax.....	5,003	88				
Profit Tax.....	26,922	00				
Gas Tax.....	11,527	47				
			43,453	35		
					1,822,814	84
WOODS AND FORESTS.						
<i>Bonus.</i>			152,223	94		
Timber Dues.....			998,863	15		
Ground Rent.....			65,084	38		
Transfer Fees.....			2,879	85		
					1,219,051	32
Assay Fees.....	1,642	96				
Casual Fees.....	504	00				
Cullers' Fees.....	517	19				
			2,664	15		
Rondeau Park.....	546	45				
Algonquin Park.....	503	75				
Forest Reserves.....	1,164	25				
			2,214	45		
					4,878	60
REFUNDS.						
Diamond Drill.....			6,251	76		
Temagami Timber Cutting.....			1,126	81		
Fire Ranging.....			12,507	44		
Surveys.....			635	79		
Inspection Fees.....			22	50		
Wood-Ranging.....			1,190	03		
Agents' Salaries.....			15	00		
					21,749	33
						3,068,494
						09

D. G. ROSS,
Accountant.AUBREY WHITE,
Deputy Minister, Lands and Mines.

APPENDIX No. 5.

STATEMENT of the receipts of the Department of Lands, Forests and Mines for the year 1907,
which are considered as Special Funds.

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister Lands and Forests.

APPENDIX No. 6.

STATEMENT of Disbursements of the Departments of Lands, Forests and Mines for the year 1907

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					26,372	39
<i>AGENTS' SALARIES.—Concluded.</i>						
<i>Homestead Inspectors.—Concluded.</i>						
Groulx, R. J.	600	00				
Hunt, J. McK.	600	00				
Quenneville, I.	600	00				
Watson, T. P.	912	50				
					6,012	50
<i>AGENTS' DISBURSEMENTS.</i>						
<i>Land.</i>						
Brown, J. B.	283	00				
Belyea, C. W.	20	00				
Byers, R. J.	13	90				
Campbell, Wm.	33	10				
Deacon, J. M.	6	18				
Ellis, Jas.	5	50				
Freeborn, Dr. J. S.	30	95				
Grills, J. J.	36	79				
Handy, E.	29	22				
Hugh Williams	39	75				
McFayden, Alex.	63	23				
Philion, J. A.	2	40				
Powell, F. R.	9	56				
Prince, Adam.	30	00				
Pronger, R. H.	35	70				
Warren, D. B.	6	40				
Whybourne, W. E.	5	12				
Young, H. N.	11	50				
					662	30
<i>Timber.</i>						
Christie, W. P.	517	75				
Hawkins, S. J.	547	72				
Henderson, Chas.	275	01				
Howie, R. G.	420	66				
Johnson, S. M.	253	24				
Kennedy, Jno.	76	73				
McDonald, H.	686	92				
Maughan, Jos.	497	65				
Margach, Wm.	1,930	47				
Oliver, J. A.	932	41				
Stevenson, A.	545	31				
					6,683	87
<i>Homestead Inspectors.</i>						
Barr, Jas.	527	20				
Burnes, C. W.	520	54				
Chester, Thos.	500	31				
Groulx, R. J.	102	25				
Hunt, J. McK.	478	70				
Quenneville, I.	189	48				
Watson, T. P.	490	3				
					2,808	71
<i>Carried forward</i>					42,539	77

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.	
<i>Brought forward.....</i>					42,539	77	
<i>Miscellaneous.</i>							
Angus, M., Inspection Township of Widdifield.	156	00					
Armitage, Jas., " lots in Kincardine.....	7	00					
Bilton, Geo., Caretaker Islands Crosby Township	25	00					
Campbell, H., Inspection Township of Esquesing	6	50					
Deelbert, Ames, " Islands Dog Lake, etc.	20	00					
Danis, Samuel, Caretaker Leonard Islands.....	20	00					
Gamey, Wm. H., Inspection Lorne, Drury, Nairn do " Graham and Waters	191	00					
Hurdman, John, " Shakespeare and d McKinnon.....	131	05					
Seegmiller, M., services	132	00					
" disbursements.....	30	68					
Scovell, Dr. S. S., rent Seegmiller's office, 1906.	26	90					
Watts, Geo., disbursements.....	360	00					
Expense, Colonization Party.....	9	50					
	302	33					
			1,417	96			
<i>Ottawa.</i>					43,957	73	
Darby, E. J., Agent.....	1,500	00					
do Special Services.....	200	00					
Larose, S. E., Clerk.....			1,700	00			
Rent.....			1,000	00			
Disbursements.....	583	33					
	74	25					
			657	58			
<i>Quebec.</i>					3,357	58	
Nicholson, B., Agent.....	1,500	00					
Harney, Thomas, Caretaker	150	00					
Rent.....			1,650	90			
Disbursements.....	93	75					
	257	92					
			351	67			
					2,001	67	
<i>WOOD RANGING.</i>							
Allan, R. A.....			1,110	00			
Ansley, J. J.....			1,110	00			
Ansley, W. E			590	00			
Arniell, Wm.....			526	00			
Barrett, Thos.....			1,432	00			
Disbursements.....			96	37			
					1,528	37	
Bastien, John			376	00			
Disbursements.....			13	20			
					389	20	
Baulke, G. B.....					15	00	
Bliss, L. E					1,385	00	
Brinkman, A. B.....					470	00	
Chalmers, Geo.....					185	00	
Chalmers, G. J.....					955	00	
Chenier, D. A.....					885	00	
<i>Carried forward.....</i>					9,148	57	
						49,316	98

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			9,148	57	49,316	98
WOOD RANGING.—Continued.						
Christie, W. P., Disbursement..			33	28		
Coburn, John.....			625	00		
Corrigan, R. F.....			795	00		
Doyle, Terence.....			100	00		
Durrell, Wm.....			1,290	00		
Fairbairn, N. H.....			20	00		
Ferguson, E. A.....			220	00		
Fisher, Geo.....			250	00		
Foster, E. G.....			780	38		
French, L.....			770	00		
Gorman, Jas. P.....			100	00		
Gorman, Patrick.....			900	00		
Halliday, Jas.....	1,225	00				
Disbursements.....		7 35				
Hartley, Chas.....			1,232	35		
Herring, E. C.....			830	00		
Hickerson, M. T.....	595	00	1,140	00		
Disbursements.....		25 00				
Hill, Joshua.....			620	00		
Huckson, A. H.....			760	00		
Hurdman, W. H.....			1,205	00		
Hutton, Jno.....			715	00		
Jervis, Henry.....			975	00		
Johnson, S. M.....	314	55	1,450	00		
Disbursements.....		30 50				
Johns, Alex.....			845	05		
Lalonde, Ephraim.....	1,108	00	640	00		
Disbursements.....		1,321	19			
Lee, J. B.....			2,429	19		
Londry, W. E.....			870	00		
Lucas, R. G.....			501	92		
Manice, William.....			550	00		
Margach, William.....	1,500	00	1,095	00		
Disbursements.....		244	07			
Margach, J. A.....			1,744	07		
Matheson, Wm.....			590	00		
Maughan, Jos.....			645	00		
Menzies, A.....			191	16		
Milway, Jos.....			1,325	00		
Morley, J. R.....	480	00	379	00		
Disbursements.....		17 85				
Moran, Andrew.....			497	85		
Murray, Geo.....			60	00		
Murray, Wm.....			1,260	00		
McCaw, John G.....			1,385	00		
McCreight, John.....	1,638	00	1,045	00		
Disbursements.....		3,069	33			
Carried forward.....			4,707	33		
			44,220	15	49,316	98

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			44,220	15	49,316	98
 WOOD RANGING.—Continued.						
McDonald, Thos.....			536	00		
McDonald, Hector.....			114	25		
McDonald, A.....			100	00		
MacDonald, S. C., disbursements.....			182	20		
McDougall, J. T.....	1,866	39				
Disbursements.....	133	00				
			1,999	39		
McLean, Jno.....			100	00		
McNabb, Alex.....			100	00		
McNamara, Jno.....			775	00		
McPhee, Roy.....			390	38		
McPherson, J. S.....			1,305	00		
Newburn, Wm.....			835	00		
Oliver, J. A.....	200	00				
Disbursements.....	88	75				
			288	75		
Paul, Chas.....			200	00		
Playfair, Andrew.....			790	00		
Reid, Henry.....			279	00		
Revell, L. O.....	431	00				
Disbursements.....	62	00				
			493	00		
Ridley, Robert.....	498	00				
Disbursements.....	9	65				
			507	65		
Ritchie, Jas. A.....			747	30		
Rogers, Fred. W.....			100	00		
Ross, Geo.....	707	00				
Disbursements.....	216	55				
			923	55		
Shaw, Alfred.....			548	00		
Shaw, Geo.....			1,135	00		
Smith, J. C. D.....	381	00				
Disbursements.....	61	35				
			442	35		
Urquhart, A.....			100	00		
Vincent, H. T.....			1,095	00		
Watts, Geo.....	1,175	00				
Disbursements.....	804	20				
			1,979	20		
Wagner, F.....			600	00		
Welch, Harold.....			760	00		
Weston, F. R.....			200	00		
Whalen, P. J.....			1,250	00		
Whyte, J. T. G.....	500	00				
Disbursements.....	16	80				
			516	80		
Wilkins, Geo.....			200	00		
Wood, W. D.....			100	00		
Yuill, Thos.....			975	00		
			64,887	97		
<i>Carried forward</i>					114,204	95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....					114,204	95
FIRE RANGING.						
Adams, Arthur.....			119	00		
Allan, R. A.....	197	65				
Disbursements.....	58	02	255	67		
Algoma Commercial Co.	1906		58	66		
do.....	1907		37	82		
Airhart, Wm.....			96	48		
Ambrose, A. W.....			55	00		
Armstrong, A. C.....			117	00		
Disbursements.....	352	50				
	30	30	382	80		
Armstrong, Dalton.....			285	00		
Disbursements.....		8 85				
Arnott, Wm.....			293	85		
Archer, Geo.....			124	00		
Atkinson, Thos. S.....			131	00		
August, Frank.....			133	00		
Barr, Archie.....			131	00		
Beck, C., Manufacturing Co.			131	00		
Belanger, J. B.....			82	75		
Bellefeville, Oliver.....			88	00		
Beaudry, Jno.....			131	00		
Bertrand, Paul.....			262	00		
Disbursements.....	362	50				
	7	00	369	50		
Benjes, W.....			122	00		
Benson, J. B.....			131	00		
Biggs, A.....			305	00		
Disbursements.....		19 70	324	70		
Biggs, J.....			305	00		
Disbursements.....		9 70	314	70		
Booth, J. R.....			92	50		
Boisvert, Jno.....			131	00		
Bonter, Smith.....			365	00		
Disbursements.....		25 40	390	40		
Boyd, David.....			131	00		
Bragg, Jno.....			362	50		
Disbursements.....		28 70	391	20		
Bracken, Jno.....			360	00		
Disbursements.....		29 20	389	20		
Brigden, Jas.....			197	50		
Disbursements.....		1 30	198	80		
Brinkman, A. B.....			216	00		
Brigham, T. G.....			29	50		
Bromley, Ed.....			131	00		
Brooks, F. W.....			131	00		
Carried forward.....			6,027	05	114,204	95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			6,027	05	114,204	95
FIRE RANGING.—Continued.						
Brooks, Thos. H.....			131	00		
Brown, J. B.....	357	50				
Disbursements.....	27	10				
Brennen, M., & Sons Co.....			384	60		
Brown, E. B.....			10	00		
Brown, John.....			131	00		
Brownlee, Samuel.....			131	00		
Brennan, Samuel.....			67	00		
Buchanan, R. F.....	300	00	131	00		
Disbursements.....	1	30				
Burger, Wm.....	272	50	301	30		
Disbursements.....	23	70				
Burgess, W. H.....			296	20		
Burns, Wm.....			131	00		
Burke, Jno.....			131	00		
Burke, James.....			130	00		
Burke, Jno.....	320	00	8	00		
Disbursements.....	26	60				
Burrows, Chas.....	335	00	346	60		
Disbursements.....	28	00				
Burrow, Ernest M.....			363	00		
Burton, Robert.....			131	00		
Byrnes, Jas.....			88	00		
Cairns, Bernard.....			91	00		
Cameron, J. V.....			50	00		
Cameron, A.....			131	00		
Campbell, H.....			109	00		
Campbell, C. A.....			131	00		
Campbell, W.....			250	00		
Campbell, J. L.....	815	00	73	00		
Disbursements.....	910	40				
Campbell, S.....			1,725	40		
Campbell, D. A.....	320	00	277	50		
Disbursements.....	26	60				
Campbell, Bruce.....			346	60		
Canada Copper Co.....			113	00		
Carlin, Thos.....			89	50		
Carter, Thos.....	257	50	131	00		
Disbursements.....	22	40				
Carter, Fenton.....			279	90		
Caron, Vital.....			70	00		
Carnachan, Gordon.....	360	00	137	00		
Disbursements.....	18	60				
Cass, W. J.....	312	50	378	60		
Disbursements.....	29	15				
Carried forward.....			341	65		
			13,663	90	114,204	95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			13	663	90	
						114,204 95
FIRE RANGING.—Continued.						
Cassiday, Jas.					13	30
Chamberlain, B. E.					103	00
Chamberlain, E. H.					66	00
Charlton, J. & W. A.					83	88
Chase, Jos.					59	00
Chenier, Noe.					69	00
Christilan, Hy.					131	00
Chaput, I.					130	00
Christie, W. P., disbursements					206	44
Clarke, Donald	172	50				
Disbursements		4 75				
Cleary, J. F.					177	25
Clute, Geo.					91	10
Clysdale, Alex.					97	00
Collins, Chas.					131	00
Collins Inlet Lumber Co.					131	00
Cole, J. J.	360	00			46	88
Disbursements		21 80				
Cavandish Lumber Co.					381	80
Conway, Richard					16	50
Conlan, J. & T.					140	00
Coke, Ed. F.	365	00			3,026	10
Disbursements		21 80				
Colclough, J. H.	342	50			386	80
Disbursements		33 15				
Coghlan, Thos.					375	65
Colonial Lumber Co.					131	00
Connelly, Jas.					7	00
Constantine, E.	1906	132	00		41	00
do.	1907	131	00			
Cousineau, A.					263	00
Coughlin, Ed.					484	00
Conger Lumber Co.					131	00
Connley, Dan.					113	00
Conger Bark, Limited.					87	00
Cooney, Pat.					43	00
Conboy, Timothy					131	00
Cook & Bros. Lumber Co.					131	00
Corrigan M.					41	81
Cote, C.					131	00
Cousins, Jas.					131	00
Cox, Jos.					118	00
Cottenham, Wm.					132	00
Coulter, Chas.	370	00				
Disbursements		21 10				
Corteau, E.	1906	116	00		391	10
do.	1907	131	00			
					247	00
Carried forward.....					2,411	51
						114,204 95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			22,411	51	114,204	95
FIRE RANGING.—Continued.						
Crawford, E.....	270	00				
Disbursements	2	20	272	20		
Crawford, A. E.....	292	50			326	55
Disbursements	34	05			62	00
Crumley, Chas.....					117	00
Cullen, M. T.....					74	00
Culhane, D.....					131	00
Curtin, D.....						
Curtis, C. A.....	332	50			360	60
Disbursements	28	10			131	00
Cuthbertson, Wm.....						
Dale, Jno. A.....	1906		132	00	263	00
do.	1907		131	00	123	00
Daniels, Jno.....					131	00
Dane, Alfred.....					131	00
Davis, W. J.....					104	00
Davidson, Jas.....						
Davidson, Ira.....	357	50			384	70
Disbursements	27	20			119	00
Dawkins, Jno.....						
Delmage, R. D.....	47	50			61	40
Disbursements	13	90			131	00
Dennison, Henry.....					25	00
Dever, Wm.....					131	00
Dillabaugh, Reuben.....					4	50
Dingman, Jno.....						
Dion, L. A.....	345	00			356	70
Disbursements	11	70				
Dougan, H. L.....	282	50			315	60
Disbursements	33	10				
Downey, R. A.....	310	00			345	64
Disbursements	35	64			131	00
Dowe, Wm.....					132	00
Doyle, T. J.....						
Duff, T. A. J.....	315	00			334	10
Disbursements	19	10			108	00
Dufond, Ignace.....					131	00
Dunn, Thos.....						
Duchanne, A.....	380	00			403	60
Disbursements	23	60				
Duval, C. A.....	365	00			379	00
Disbursements	14	00				
Carried forward.....			28,131	10	114,204	95

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		28,131 10	114,204 95
FIRE RANGING.—Continued.			
Dreany, Alex.....	335 00		
Disbursements.....	2 00		
Draycott, E. A.....		337 00	
Driver, Jos.....		133 00	
Eady, Robt. S.....		131 00	
Edwards, Jos. K.....		121 00	
Elliott, Jackson.....	370 00	52 00	
Disbursements.....	30 00		
Elliott, Wm.....		400 00	
Eno, Geo.....		69 65	
Enright, Thos.....	357 50	119 00	
Disbursements.....	9 75		
Ervin, Thos.....		367 25	
Evans, Stanley.....	362 50	131 00	
Disbursements.....	24 45		
Farrell, K. A.....	272 50	386 95	
Disbursements.....	13 50		
Ferguson, Wm.....	337 50	286 00	
Disbursements.....	13 30		
Fairbairn, N. H. Disbursements.....	1906	350 80	
Ferguson, E. A.....		23 15	
Ferguson, Julien.....		131 00	
Ferguson, J. H.....		104 00	
Ferris, Richard.....	480 00	85 00	
Disbursements.....	12 50		
Filiator, Jas.....		492 50	
Findlay, John.....		125 00	
Finlayson, John.....		85 00	
Fitzgerald, Jas.....		132 00	
Fitzhenry, John.....		95 00	
Fisher, Geo.....		131 00	
Firstbrook Box Co.....		200 00	
Flaherty, John.....		8 50	
Fleming, F. W.....		131 00	
Foisey, M.....		131 00	
Foran, Patrick.....		131 00	
Fortier, Jos.....		79 00	
Fraser, Geo.....		79 65	
Fraser, J. K.....	265 00		
Disbursements.....	14 25		
Fraser, John.....		279 25	
Frappiere, A.....		106 00	
Frawley, F.....		79 00	
Frechette, O.....		108 00	
Gagnon, Noel.....	1906	131 00	
do.....	1907	131 00	
		262 00	
Carried forward.....		34,275 80	114,204 95

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		34,275 80	114,204 95
FIRE RANGING.—Continued.			
Gagnon, A.....1906	81 00		
do .....1907	131 00	212 00	
Gagnon, Felix.....1906	52 00		
do .....1907	99 00	151 00	
Gagne, Ferdinand.....	812 00		
Disbursements	322 22		
Gallagher, Jas.....		1,134 22	
Gallie, Gordon.....	277 50	131 00	
Disbursements	32 50		
Gardiner, Jno.....1906	131 00		
do .....1907	128 00	310 00	
Garcea, A.....1906	131 00		
do .....1907	131 00	259 00	
Garvin, Morgan.....	365 00		
Disbursements	2 00	262 00	
Gaudette, Philip.....		367 00	
Gemmell, Jno.....	552 00		
Disbursements	149 60	131 00	
Geddes, Jas. H.....	335 00		
Disbursements	31 60	701 60	
Genereaux, Nelson.....1906		366 60	
Georgian Bay Lumber Co.....		112 00	
Gingrass, Jos.....		13 50	
Gibson, Jas.....		97 50	
Gilchrist, John J.....		131 00	
Gill, John W.....		35 00	
Gillies Bros.....		85 00	
Gongeon, A.....		124 14	
Gongan, Jas.....		131 00	
Gordon, Jas.....		100 00	
Gordon, Geo. and Co.....		112 00	
Gorman, P. J.....		48 75	
Gould, F.....		53 00	
Graham, G. N.....	335 00		
Disbursements	14 90	132 00	
Graham, David.....		349 90	
Grafton, W. F.....		80 00	
Granberger, Thos.....1906	134 00		
do .....1907	131 00	75 00	
Granton, Jas.....	362 50		
Disbursements	23 90	265 00	
Gravelle, John.....		386 40	
Graves, Bigwood and Co.....		131 00	
Gray, A.....		216 32	
		131 00	
Carried forward.....		41,110 73	114,204 95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
<i>Brought Forward.....</i>			41,110	73	114,204	95
FIRE RANGING.—Continued.						
Greenshields, Ed.....			83	00		
Green, Ed. W.....			91	00		
Griffith, Wm.....			100	00		
Griffin, Jas.....			131	00		
Groulx, Arthur.....			131	00		
Grozell, A. D.....			115	00		
Guerin, Benoit.....			15	00		
Guertin, Oliver.....	1908	131 00				
do.....	1907	131 00				
			262	00		
Gunter, P. M.....			120	00		
Guthrie, Wm.....			350	00		
Disbursements.....		6 10			356	10
Guy, Norman.....			360	00		
Disbursements.....		21 30			381	30
Haley, Edward.....					132	00
Hamel, Peter.....					131	00
Hand, Thomas.....			524	00		
Disbursements.....		10 00			534	00
Harkness, G.....			337	50		
Disbursements.....		44 70			382	20
Harper, Thos.....					131	00
Harrison, Jno. & Sons.....					29	00
Hart, R. R.....			277	50		
Disbursements.....		32 50			310	00
Hawkesbury Lumber Co.....					32	00
Hartley, Mark.....					106	00
Hasken, Wm.....					131	00
Hawley, Jas.....	1906				106	00
Hawley, D. J.....			365	00		
Disbursements.....		25 90			390	90
Hebert, Louis.....			297	50		
Disbursements.....		14 90			312	40
Hennessy, C. F.....					69	00
Henderson, Chas.....					8	72
Herring, E. C.....	1906	128 00				
do.....	1907	200 15				
Disbursements.....		60 93				
Herriman, N. J.....					389	08
Hickey, Jas. L.....					106	00
Hill, Jas.....					101	00
Hillman, Jno.....					287	50
Hillman, Alex.....					112	00
Holland and Graves.....					99	00
Hogarth, Henry.....					64	13
Hope Lumber Co.....					127	00
Holt, Geo. H.....					322	50
					8	00
<i>Brought Forward.....</i>			47,317	56	114,204	95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			47,317	56	114,204	95
FIRE RANGING.—Continued.						
Holt Lumber Co.....					4	00
Hooey, Geo. F.....	312	50				
Disbursements.....	25	45			337	95
Hodgins, Thos.....	370	00				
Disbursements.....	25	00			395	00
Hubbard, W. H.....	362	50				
Disbursements.....	27	40			389	90
Hunt, J. W.....					107	00
Hurd, Edwin.....					36	00
Hurd, Asa.....					131	00
Irish, Wm.....	255	00				
Disbursements.....	13	75			268	75
Johnston, Robt.....					262	50
Jones, R. D.....					131	00
James, Thos.....					89	00
Keeler, Geo. N.....	362	50				
Disbursements.....	23	90			386	40
Kennedy, Robt.....	1906		55	00		
do.....	1907		48	00		
Kennedy, Jno. J.....					103	00
Kelly, Jno.....					109	00
Kirby, Jno.....					131	00
Kerr, A. W.....					96	00
Keys, A. B.....	362	50			131	00
Disbursements.....	25	40				
Kidd, G. W.....	1906				387	90
Kilby, A.....					25	00
King, Frank.....					131	00
King, Chas.....					290	00
Kirk, W. J.....					106	00
Kruger, A. P.....					79	00
Lafleur, Wm.....					347	50
Lamarche, Jno.....					131	00
Lambert, Hy.....					131	00
Lamothe, Michael.....					75	00
Langlois, Adolphe.....					131	00
Laroque, Mark.....					78	94
Larkins, Edward.....					96	00
Larrimer, Jcs.....					80	00
Lavois, Xavier.....					116	00
Law, W. J.....					131	00
Lawson, David.....					131	00
Ledwood, Thos. H.....					127	00
Lebeau, Jno.....					29	00
Leblanc, A.....					120	00
Lee, Jas. B.....					131	00
Disbursements.....			1,215	75		
			175	81		
Carried forward.....					1,391	56
					54,691	96
					114,204	95

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		54,691 96	114,204 95
FIRE RANGING.—Continued.			
Lefrance, Thos.....1906	130 00		
do .....1907	131 00		
Lendrum, Jno.....1906		261 00	
Lewis, Chas.....1905		131 00	
Lloyd, Ed.....		106 00	
Londry, W. E.....		111 00	
Lorenz, Chas.....		111 00	
Lorenz, Fred.....		131 00	
Lortie, Jas. H.....	197 50	133 00	
Disbursements.....	4 40		
Lovering, J. E.....	275 00	201 90	
Disbursements	7 40		
Loveland & Stone.....		282 40	
Loughrin, L.....		21 00	
Lynch, M. D.....		131 00	
Macfarlane, R. L.....		106 00	
Macdonald, Jno. D.....1906	98 00	128 00	
do .....1907	114 00		
Mackie, N.....	17 50	212 00	
Disbursements	3 10		
Madigan, Wm.....		20 60	
Major, H.....		156 00	
Malloy, Chas.....		131 00	
Manes, Jno.....		47 00	
Manion, Isadore.....		92 00	
Margach, J. A.....	60 00	121 00	
Disbursements	37 15		
Margach, Wm., disbursements		97 15	
May, Albert.....		138 06	
Marion, Jule.....		131 00	
Marshall, Wm.....		78 94	
Matte, Jos.....1906	360 00	109 00	
Disbursements	6 20		
Massey, Herbert		366 20	
Mercier, Pat.....1906	131 00		
do .....1907	131 00		
Mercer, Whitefield		131 00	
Merchant, Herbert		126 00	
Merchant, Jno.....		484 00	
Disbursements	10 00		
Middleton, Jno.....		494 00	
Miller, Percy.....		131 00	
Mitchell, Walter.....		80 00	
Montroy, J. J.....1906	131 00	101 00	
do .....1907	131 00		
Carried forward.....		262 00	
			60,317 21
			114,204 95

APPENDIX No. 6.—Continued.

Name.	\$. c.	\$. c.	\$. c.
Brought forward.....		60,817 21	114,204 95
FIRE RAN&ING.—Continued.			
Monford, Jno.....		162 50	
Mongeon, Alex.....		131 00	
Mongeon, Napoleon.....	1906	131 00	
Montreuil, Louis.....	1906	131 00	
do	1907	302 50	
Morand, Louis		6 25	
Disbursements			
Morley, J. R.....		292 50	308 75
Moore, Jos. R.....		28 40	28 75
Disbursements			
Moore & Macdonald	1906	207 50	320 90
Morgan Lbr. Co.....		18 30	9 00
Mosley, Michael.....			29 28
Mountstevens, Jno.....			85 00
Mulvaney, Neil.....			68 00
Murphy, Wm.....			131 00
Disbursements			
Muskoka Mill and Lumber Co.....		225 80	
McAmmond, Jos.....		26 50	
McAdam, Wm.....		102 00	
McBean, R.....		131 00	
McCaffery, Jas.....		131 00	
McCauley, Jerry.....		66 00	
McClure, A.....		71 00	
McColl, Archie		131 00	
McCoy, Francis.....		17 00	
McCullough, David		370 00	
Disbursements		23 90	
McCaw, Jno. G.....		376 00	393 90
Disbursements		74 40	
McCaw, Jas.....		335 00	450 40
McCormick, Victor O.....		12 10	131 00
Disbursements			
McCullough, Chris		370 00	347 10
Disbursements		21 50	
McDonald, Garnet		287 50	391 50
Disbursements		21 35	
McDonald, A. J.....			308 85
McDonald, Alex.....			97 00
McDonald, Frank		345 00	104 00
Disbursements		1 40	
McDonald, Malcolm	1906		346 40
McDonald, Donald	1906		92 00
do	1907	100 00	
			231 00
Carried forward.....		65,909 84	114,204 95

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		65,909 84	114,204 95
FIRE RANGING.—Continued.			
McDonnell, G. D. 1906	131 00		
do 1907	131 00		
McDougall, D. M.		262 00	
McDougall, J. T., Disbursements		55 00	
McGarvey, Robert		140 48	
McGlashan, Jno		113 37	
McGhie, Chas. 1906	123 00	131 00	
do 1907	131 00		
McGuire, T. C.	345 00		254 00
Disbursements.....	26 50		
McGuire, A. & Co.		371 50	
McInnes, D. C.		18 00	
McIntyre, Wm		69 65	
McIver, Hugh.	357 50	48 00	
Disbursments.....	32 60		
McKay, Hugh	365 00		390 10
Disbursements.....	36 00		
McKay, Angus		401 00	
McKee, Chas		131 00	
McKinsey, Jos.		61 00	
McLaughlin, Jno.		127 00	
McLaughlin, Bros.		131 00	
McLean, Jas. D.		11 00	
McLeod, Bernard		86 00	
		122 50	
McMullen, Wm		131 00	
McMillan, Jno.		106 00	
McMillan, Donald.		100 00	
McMillan, Duncan.	365 00		
Disbursements.....	7 00		
McMillan, A.		372 00	
McNabb, Alex		70 00	
McRae, Alex		95 00	
McRae, Jno. D.		129 00	
McTavish, R.	350 00	454 75	
Disbursements.....	36 95		
McPhee, Hugh :.... 1906	131 00		386 95
do 1907	131 00		
McQuire, Hugh		262 00	
Nadon, Xavier	165 00	120 00	
Disbursements.....	10 80		
Nault, Jas.		175 80	
Nancekeville, Thos.	340 00	33 00	
Disbursements.....	21 20	361 20	
Carried forward.....		71,630 14	114 204 95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			71,630	14	114,204	95
FIRE RANGING.—Continued.						
Newburn, Wm.	1906	10 00				
do	1907	528 00				
Newton Thos			538 00			
Nicholson, Alex.			131 00			
O'Brien, M.			114 00			
O'Brien, Phil			131 00			
O'Connor, Jos.			93 00			
Disbursements			375 00			
		14 50				
O'Neil, Jas.	1906				389 50	
O'Neil, A. J.			335 00		6 00	
Disbursements			13 80			
Owens, R.					348 80	
Page, Noe					124 00	
Patterson, Frank.			347 50		126 00	
Disbursements			30 70			
Patterson, Arch.					378 20	
Payne Wm					24 00	
Pearson, J.			310 00		52 00	
Disbursements			22 58			
Peeler, Chas.					332 58	
Pembroke Libr. Co.					98 25	
Perrault, Wm.	1906	107 00			52 25	
do	1907	132 00				
Phillips, T. E.					239 00	
Pitt, Benj.					113 58	
Piper, E. G.	1906	202 00			82 25	
do	1907	131 00				
Piper, Chas					333 00	
Playfair, A. W.					60 00	
Playfair and White					28 00	
Plonde, Chas.					42 58	
Pollard, W. E.					132 00	
Prestley, Jas.			217 50		113 58	
Disbursements			15 00			
Price, H. S.					232 50	
Disbursements			342 50			
		29 50				
Quilty, Jno.			375 00			
Disbursements			28 80			
Quigley, Wm.	1906				372 00	
Ranger, A.					403 80	
Rathbun, Co'y.					201 00	
Readman, R.					79 00	
Regan, Mark					64 50	
Renaud, Jos.					287 50	
Carried forward					118 00	
					131 00	
					77,602 01	
						114,204 95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			77,602	01	114,204	95
FIRE RANGING.—Continued.						
Retty, Jno. G.....			55	62		
Retty, Jas.....			55	62		
Revell, L. O.....	1906		608	00		
Reynolds, Jas.....			131	00		
Richardson, J.....			87	00		
Ritchie, R. and T.....			16	50		
Rivers, Jno.....			84	00		
Rodgers, Thos.....			111	00		
Rocky Farm Limit.....			2	63		
Ross, A. C.....			130	00		
Ross, Geo.....	1906		131	00		
Ryan, Jno.....	1906	78	00			
".....	1907	131	00			
Salois, Oliver.....			209	00		
Saginaw Lumber and Salt Co.....			104	00		
Saucier, O.....			4	50		
Savard, August.....			131	00		
Disbursements.....			372	50		
			14	50		
Scantlin, Jas.....	1906	95	00			
do.....	1907	74	00			
Scheich, Jno.....			169	00		
Schryer, Phil.....			131	00		
Scott, Jno.....			104	00		
Scott, Robt.....			119	00		
Sheridan, Peter.....	1906		532	00		
Shields, Geo.....			114	00		
Shields, Thos.....			110	00		
Shields, W. J.....			125	00		
Shier, J. D., Lumber Co.....			150	45		
Sheppard, E. C.....			19	00		
Disbursements.....			297	50		
			32	50		
Sheppard & Morse Lumber Co.....			330	00		
Sheppard & Wallace.....			640	67		
Sicard, Frank.....			19	00		
Seidmore, Ed.....			112	00		
Simpson, Alex.....	1906	126	50			
do.....	1907	132	00			
Sloan, Pat.....	1906		258	50		
Sloan, Jno.....			70	00		
Sloman, Thos.....			11	00		
Smith, Wm.....			73	00		
Smith, Willard.....			131	00		
Smith, Jos.....			69	00		
Smith, J. D. C.....			86	00		
Smith, A. L.....			204	00		
Disbursements.....			322	50		
			19	40		
Sneezy, Ben.....			341	90		
Spence, W. H.....			131	00		
			131	00		
Carried forward.....			84,051	40		
					114,204	96

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			84,051	40	114,204	95
FIRE RANGING.—Continued.						
Spreadborough, Newell.....			128	00		
Stav, Jno.....			86	00		
St. Amour, Jno.....			105	00		
St. Anthony Lumber Co.....			43	00		
St. Eloi, J. C.....			127	00		
St. Dennis, Chas.....			82	25		
Stanley, L.....			88	00		
Stewart, Duncan.....			79	00		
Stewart, D. R.....			116	00		
Stethun, H.....			290	00		
Stellar, Fred.....			42	00		
Strans, Philip.....			91	00		
Storey, S.....			113	00		
Stringer, David.....			78	00		
Stuart, H. B.....	335	00				
Disbursements.....	31	10				
Sully, Ed.....			366	10		
Symington, Wm.....			108	00		
Tang, Jno.....	355	00	131	00		
Disbursements.....	9	50				
Terryberry, L. E.....	337	50	364	50		
Disbursements.....	22	80				
Todd, Chas.....	270	00	360	30		
Disbursements.....	2	20				
Todd, J. E.....	307	50	272	20		
Disbursements.....	29	08				
Thibert, Phil.....	295	00	336	58		
Disbursements.....	6	00				
Tremblay, Jos.....	355	00	301	00		
Disbursements.....	9	40				
Tompkins, Jno. H.....			364	40		
Thessalon Lumber Co.....			391	00		
Thomas, Jas.....			81	00		
Thomson, R. D.....	1906		109	00		
do.....	1907					
1906	131	00				
1907	131	00				
Thomson, Jas.....	290	00	262	00		
Disbursements.....	23	25				
Thompson, Chas. R.....			313	25		
Thompson, Geo. S.....			347	50		
Thompson, Milton.....			104	00		
Disbursements.....	345	00				
	17	60				
Thompson, Wm.....	1906		362	60		
Tulloch, L. G.....			131	00		
Turner Lumber Co.....			124	00		
Tyson, Wm.....			7	25		
			110	00		
Carried forward.....			90,466	33	114,204	95

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
Brought forward.....			90,466	33	114,204	95
FIRE RANGING.—Continued.						
Tyson, Thos.....			124	00		
Urquhart, A.....			532	00		
Valliant, G.....			131	00		
Vallentyne, D.....			32	00		
Vernette, Jno.....			131	00		
Vien, Michael.....	1905		131	00		
Villiers, C.....			91	00		
Volker, P. D.....			79	00		
Wallace, Samuel.....			104	00		
Wallace, Jno.....			104	00		
Wales, T.....			67	00		
Walsh, Jas.....	1906		131	00		
do.....	1907		131	00		
			262	00		
Watts, Geo., disbursements.....			299	75		
Warrington, G. A.....			222	50		
Disbursements.....			23	35		
			245	85		
Watson, W. V.....			140	00		
Disbursements.....			31	00		
			171	00		
Watson, Geo.....			49	00		
Wandby, Bert.....			17	00		
Wickens, Hy.....			81	00		
Disbursements.....			57	50		
			138	50		
Wilford, E. C.....			287	50		
Disbursements.....			29	20		
			316	70		
Williamson, Robt.....			325	00		
Disbursements.....			6	50		
			331	50		
Wilkins, Geo.....			444	00		
Williams, A. D.....			31	00		
Wilson, R. D.....			142	50		
Wilson, Daniel.....			121	00		
Wilson, Dave.....			15	00		
Windle, Jno.....	1906		131	00		
Winters, Jno. W.....			131	00		
Woiford, A.....			66	00		
Woodcock, Geo.....			345	00		
Disbursements.....			30	10		
			375	10		
Woollings, Jos.....			327	50		
Wray, J. S.....			340	00		
Disbursements.....			32	00		
			372	00		
Wright, J.....			87	00		
Disbursements.....			94	40		
			181	40		
Wright, C. M.....			307	50		
Disbursements.....			26	28		
			333	78		
Carried forward.....			96,494	91	114,204	95

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward	96,494 91		114,204 95
FIRE RANGING.—Continued.			
Wright, Colin	370 00		
Disbursements	40 60		
Yandon, Jas.		410 60	
Yuill, J. A.		91 00	
Young, Thos.		131 00	
		107 00	
			97,234 51
BELLEVILLE ASSAY OFFICE.			
Burrows, A. G.	salary 333 00		
Turner, N. L.	salary 667 00		
Embury, W. J.	clerk 268 28		1,000 00
Barlow, H. C.	209 75		
Supplies	537 36		
Disbursements	343 24		
Equipment	172 13		
			1,052 73
MINING DEVELOPMENT.			2,530 76
Exploration.			
Bowen, N. L.	services 383 65		
Disbursements	529 74		
Boyd, D. G.	special services 100 00		913 39
Disbursements	236 15		
Brock, R. W.	services 338 46		
Disbursements	213 28		
Goodwin, Wm.	services 317 30		551 74
Disbursements	19 25		
Hore, R. E.	services 350 00		
Disbursements	27 10		
Kidd, G. E.	services 284 29		336 55
Disbursements	24 60		
Mitchell, A. C.	services 447 11		
Moore, E. S.	services 404 50		
Disbursements	712 54		
		178 86	
Parsons, A. L.	services 654 84		1,618 98
Disbursements	532 78		
Rogers, W. R.	services 105 77		
Disbursements	29 05		
Rogers, F. C.	services 134 82		
Disbursements			
Carried forward	6,795 71		218,970 22

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		6,795 71	213,970 22
MINING DEVELOPMENT.—Continued.			
Rothwell, T. E. services	414 26		
Disbursements	638 61	1,052 87	
Stewart, R. B. services	360 39		
Disbursements	3 65	364 04	
Whitson, J. F. disbursements	25 55		
Baker, M. B. do	13 85		
Chester, Thos. do	6 50	45 90	
Advertising	15 00		
Printing and stationery	930 48		
Express	205 47	1,150 95	
MINING RECORDERS.			
Belyea, C. W. services	500 00		
Disbursements	84 00	584 00	
Bowker, S. T. services	636 70		
Disbursements	312 48	949 18	
Hough, J. A. services	907 06		
Browning, A. J. do	470 20		
McEachren, F. Y. do	105 77		
Jeffrey, W. H. do	53 46		
Disbursements	1,696 56	3,233 05	
Lemieux, F. F.	636 70		
Disbursements	146 13	782 83	
Morgan, J. W. services	525 00		
Disbursements	390 84	915 84	
Macphail, Alex. services	516 60		
Disbursements	1,195 37	1,711 97	
McQuire, H. F. services	500 00		
Disbursements	190 20	690 20	
McArthur, T. A. services	1,109 60		
McLaren, Miss K. do	421 33		
Disbursements	499 30	2,030 23	
Smith, Geo. T. services	2,000 00		
McAuley, N. J. do	1,200 00		
Bruce, A. E. D. do	826 72		
Ferguson, R. A. do	850 00		
Meagher, T. J. do	603 75		
Monroe, Miss E. L. do	246 92		
Smith, Miss M. H. do	480 00		
Morgan, Miss Kate. do	297 50		
Marshall, J. A. disbursements	36 45		
Disbursements	125 93	6,667 27	
Torrance, Thos. H., services	384 60		
<i>Carried forward</i>	384 60	26,974 04	213,970 22

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
<i>Brought forward.....</i>	384 60	26,974 04	213,970 22
<i>MINING RECORDERS.—Continued.</i>			
Williamson, Wallace, do	374 23		
Knapp	175 00		
Disbursements	796 31		
		1,730 14	
<i>Mining Commissioner.</i>			
Price, S., services	3,000 00		
Disbursements	2,163 34		
		5,163 34	
<i>Mining Inspectors.</i>			
Bartlett, Jas., services	930 40		
Disbursements	1,420 17		
		2,350 57	
Burrows, A. G., services	1,066 67		
Disbursements	552 54		
		1,619 21	
Corkill, E. T., services	2,000 00		
Disbursements	1,247 45		
		3,247 45	
Houston, D. W., services	689 29		
Disbursements	133 65		
		822 94	
Irwin, R. T., services	698 97		
Disbursements	114 65		
		813 62	
McLaren, Geo. R., services	689 29		
Disbursements	93 45		
		782 74	
MacKenzie, G. C., services	881 60		
Disbursements	410 24		
		1,291 84	
Mickle, G. R., disbursements	750 00		71 50
Murray, C. W., services	348 15		
Disbursements			1,098 15
Robinson, A. H. A., services	1,900 00		
Disbursements	650 25		
		2,550 25	
Wade, E., services	471 62		
Disbursements	71 45		
		543 07	
Miller, G. W., services	4,000 00		
Disbursements	960 62		
		4,960 62	
Knight, C. W., services	1,581 26		
Disbursements	344 31		
		1,925 57	
Coleman, A. P., services	500 00		
Disbursements	1,086 24		
		1,586 24	
<i>Supplementary Revenue.</i>			
Mickle, G. R., services	1,793 86		
Disbursements	494 80		
		2,288 66	
<i>Carried forward.....</i>		59,819 95	213,970 22

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			59,819	95	213,970	22
<i>Supplementary Revenue.—Continued.</i>						
Scott, Jno., services	313	46				
Disbursements	149	74				
Toyne, Jno., services	300	00	463	20		
Disbursements	102	80				
			402	80		
					60,685	95
<i>CULLERS' ACT.</i>						
Currie, D. H., services	16	00				
Disbursements	26	70				
			42	70		
McDougall, J. T., disbursements			10	50		
McNabb, A. D., services			8	00		
Margach, Wm., disbursements			23	50		
Oliver, J. A., disbursements			22	30		
Watts, Geo., disbursements			4	80		
Advertising			8	40		
					120	20
<i>FOREST RESERVE.</i>						
<i>Temagami Reserve.</i>						
Baker, H. W.	310	00				
Disbursements	17	60				
			327	60		
Bayliss, J. W.	327	50				
Disbursements	21	60				
			349	10		
Bickford, L. D.	117	50				
Disbursements	13	35				
			130	85		
Bracken, E. J.	345	00				
Disbursements	32	90				
			377	90		
Byers, Jas. C.	330	00				
Disbursements	19	90				
			349	90		
Carruthers, R. A.	340	00				
Disbursements	18	20				
			358	20		
Cornett, W. F.	350	00				
Disbursements	33	90				
			388	90		
Currey, D. V.	310	00				
Disbursements	20	30				
			330	30		
Delbec, Trefles	332	50				
Disbursements	7	60				
			340	10		
Davidson, Ernest			85	00		
Davidson, Geo. T.	290	00				
Disbursements	19	60				
			309	60		
<i>Carried forward</i>			3,342	45	274,776	37

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		3,342 45	274,776 37
FOREST RESERVE—Continued			
<i>Temagami Reserre.—Continued.</i>			
Deacon, Wm. A.....	350 00		
Disbursements	8 70		
Dion, A.....	330 00		
Disbursements	6 65		
Duff, Jos.....	347 50		
Disbursements	29 20		
Dyson, T. W.....		336 65	
Ellis, John	400 00		
Disbursements	7 00		
Ellis, Richard, J.....	347 50		
Disbursements	34 65		
French, Jno. J.....	277 50		
Disbursements	7 40		
Gondro, A.....	155 00		
Disbursements	6 05		
Hamilton, C. D.....		161 05	
Hill, Milton	332 50		
Disbursements	7 60		
Jenks, Jas.....	277 50		
Disbursements	8 70		
Johnson, A.....		286 20	
Kelly, C. B.....	305 00		
Disbursements	20 05		
Lemarche, Alphonse.....		325 05	
Loucks, R. W. E.....	345 00		
Disbursements	23 60		
Macdonald, S. C.....	1,300 00		
Disbursements	824 91		
Mason, Basil.....	227 50		
Disbursements	21 60		
Milligan, Frank.....	250 00		
Disbursements	23 60		
Montgomery, Alex.....	405 00		
Disbursements	17 50		
McCammon, Gordon	350 00		
Disbursements	35 40		
<i>Carried forward</i>		10,968 41	274,776 37

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		10,968 41	274,776 87
FOREST RESERVE.—Continued.			
Temagami Reserve.—Continued.			
McGregor, Peter.....	475 00		
Disbursements	9 20	484 20	
McLean, Jas. M.....	330 00		
Disbursements	23 80	353 80	
Parke, T. F.....	350 00		
Disbursements	40 65	390 65	
Petrant, Wm.....	270 00		400 00
Pratt, Henry L.....	23 10		
Disbursements		293 10	
Prudholmme, Adolph.....	392 50		
Disbursements	37 80	430 30	
Ranger, T.....	310 00		
Disbursements	11 70	321 70	
Reed, Wm.....	347 50		
Disbursements	23 60	371 10	
Rochefort, Patrice.....	145 00		
Disbursements	3 10	148 10	
Rochon, Jos.....	230 00		475 00
Rodden, Jno. J.....	3 10		
Disbursements		233 10	
Ross, Douglas H.....	317 50		
Disbursements	19 05	336 55	
Shields, W. J.....	370 00		
Disbursements	3 70	373 70	
Shortt, W. F.....	120 00		
Disbursements	20 80	140 80	
Smith, Frank L.....	340 00		
Disbursements	26 35	366 35	
Smith, G. H. G.....		1 00	
Stairs, G.....		1 00	
Turner, John.....		312 50	
Turner, Jos.....		75 00	
Tufts, Robt.....		25 00	
Tytler, Norman B.....	330 00		
Disbursements	17 65	347 65	
Vivervais, D.....	402 50		
Disbursements	8 70	411 20	
Williams, Chas.....	307 50		
Disbursements	3 70	311 20	
Carried forward.....		17,571 41	274,776 87

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		17,571 41	274,776 37
FOREST RESERVE.—Continued.			
<i>Temagami Reserve.—Continued</i>			
Woodhouse, R.....		1 00	
Young, C. S.....	255 00		
Disbursements.....	12 30		
		267 30	
<i>Metogami Reserve.</i>			
Burden, Jno.....	664 00		
Disbursements.....	518 06		
		1,182 06	
Chanabois, Sandy.....		232 50	
Chown, W. D.....	345 00		
Disbursements.....	25 90		
		370 90	
Duff, Alex. C.....	347 50		
Disbursements.....	25 40		
		372 90	
Goldie, D. M.....	312 50		
Disbursements.....	25 90		
		338 40	
Haywood, A. K.....	337 50		
Disbursements.....	28 15		
		365 65	
Hill, Harold O.....	335 00		
Disbursements.....	25 90		
		360 90	
Hunter, Frank.....	372 50		
Disbursements.....	26 35		
		398 85	
Kennedy, Gordon M.....	355 00		
Disbursements.....	29 15		
		384 15	
Kent, Hubert.....	410 00		
Disbursements.....	27 90		
		437 90	
Kersey, Robert R.....	330 00		
Disbursements.....	24 80		
		354 80	
Quail, James.....	345 00		
Disbursements.....	27 40		
		372 40	
Robertson, A. D.....	307 50		
Disbursements.....	26 55		
		334 05	
Ryerson, E. E.....	345 00		
Disbursements.....	23 90		
		368 90	
Stutt, H. G.....	325 00		
Disbursements.....	31 45		
		356 45	
Webb, C. E.....	335 00		
Disbursements.....	26 65		
		361 65	
<i>Carried forward</i>		24,432 17	274,776 37

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		24,432 17	274,776 37
FOREST RESRVE.—Continued.			
Mississaga Reserve.			
Albright, Lewis.....	372 50		
Disbursements.....	19 00		391 50
Darroch, John.....	212 50		
Disbursements.....	15 90		228 40
Dey, W. F.....	197 50		
Disbursements.....	18 60		216 10
Hall, Morton E.....	355 00		
Disbursements.....	26 15		381 15
James, G. Albert.....	317 50		
Disbursements.....	14 65		332 15
Keys, W. Ralph.....	362 50		
Disbursements.....	26 50		389 00
Kinney, Wm.....	656 00		
Disbursements.....	430 99		1,086 99
Kroll, Victor.....	365 00		
Disbursements.....	23 90		388 90
Lee, Jas. W.....	232 50		
Disbursements.....	30 10		262 60
Lipman, Arthur.....	362 50		
Disbursements.....	33 70		396 20
Manzer, Emerson J.....	287 50		
Disbursements.....	14 75		302 25
Markle, G. A.....	337 50		
Disbursements.....	13 95		351 45
Marshall, J. F. S.....	355 00		
Disbursements.....	35 45		390 45
Metcalfe, N. E.....	197 50		
Disbursements.....	25 00		222 50
Moorehouse, V. H. K.....	295 00		
Disbursements.....	23 90		318 90
Omelia, H. S.....	365 00		
Disbursements.....	25 90		390 90
Playfair, A. W.....	290 00		
Disbursements.....	12 10		302 10
Richardson, Lorne W.....	292 50		
Disbursements.....	17 85		310 35
Carried forward.....		31,094 06	274,776 37

APPENDIX No. 6.—Continued.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....		31,094 06	274,776 37
FOREST RESERVE.—Continued.			
<i>Mississaga Reserve.—Continued.</i>			
Westby, W. R.....	87 50		
Disbursements	86 95		174 45
<i>Nepigon Reserve.</i>			
Adams, W. F. Morris.....	292 50		
Disbursements	69 10		361 60
Armstrong, W. H.....	285 00		
Disbursements	56 05		341 05
Bonnycastle, R. H.....	335 00		
Disbursements	57 30		392 30
Burns, W. S.....	290 00		
Disbursements	71 10		361 10
Dowling, Chas.....	285 00		
Disbursements	61 30		346 30
Drope, Harry E.....	292 50		
Disbursements	61 85		354 35
Evans, R. Ramsay.....	195 00		
Disbursements	53 10		248 10
Giffler, W. G.....	162 50		
Disbursements	8 00		170 50
Helliwell, Paul.....	320 00		
Disbursements	60 60		380 60
Holton, Geo. H.....	297 50		
Disbursements	73 60		371 10
Leitch, Peter A.....	1,131 25		
Disbursements	1,444 36		2,575 61
Lunney, J. W.....	297 50		
Disbursements	74 90		372 40
Marter, Fred M.....	242 50		
Disbursements	59 10		301 60
Moyer, L. Clare.....	317 50		
Disbursements	68 50		386 00
McNeil, E. H.....	242 50		
Disbursements	43 80		286 30
Nesbitt, M.....	232 50		
Disbursements	55 80		288 30
Carried forward.....		38,805 72	274,776 37

APPENDIX No. 6.—Continued.

Name.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			38,805	72	274,776	37
FOREST RESERVE.—Continued.						
<i>Nepigon Reserve</i> .—Continued.						
Poisson, Paul	300	00				
Disbursements	68	80				
Robertson, Fred. A	320	00	368	80		
Disbursements	58	10				
Stirrett, J. T.	337	50	378	10		
Disbursements	42	10				
Tichborne, A.	232	50	379	60		
Disbursements	51	40				
<i>Eastern Reserve</i> .			283	90		
Godkin, J. A.			272	50		
Mills, G. G., jr.	265	00				
Disbursements	14	40	279	40		
Mills, S. G.	300	00				
Disbursements	18	40	318	40		
McGregor, Chas.			265	00		
Tapping, Thos.	400	00				
Disbursements	33	30	433	30		
<i>Sibley Reserve</i> .						
Oliver, J. A.			100	00	41,884	72
SURVEYS					162,479	91
BOARD OF SURVEYORS.....					200	00
GILLIES LIMITS.....					30,686	60
MINERAL COLLECTIONS.....					70	00
REFUNDS.....					23,621	06
CONTINGENCIES.						
<i>Bureau of Mines</i> .						
Printing and Binding	2,319	80				
Stationery and Papers.....	3,147	66				
Postage	372	48	5,467	46		
Telegraphing	273	64				
Express and cartage.....	128	77				
Advertising	3,047	02			774	89
Subscription	103	95				
<i>Carried forward</i>	3,150	97	6,242	35	533,718	66

APPENDIX No. 6.—Concluded.

Name.	\$ c.	\$ c.	\$ c.
Brought forward.....	3,150 97	6,242 35	533,718 66
CONTINGENCIES.—Continued.			
Bureau of Mines.—Continued.			
Books.....	530 84		
Maps.....	871 53		
Gibson, Thos. W., traveling expenses.....	41 27		
Lount, H. M., do.....	106 42		
Typewriter repairs, etc.....	12 50		
Bell Telephone Co., messages.....	3 45		
Extra clerks.....		15 95	
Denton, Dunn and Boulbee, legal expenses.....	250 00		
Bicknell and Co., do.....	226 34		
McDougall, J. Lorne, do.....	124 90		
Price, Samuel, do.....	500 00		
Sundries.....	30 60		
		1,131 84	
			15,209 46
Departmental.			
Printing and binding.....	2,982 47		
Stationery.....	6,895 11		
Postage.....	2,257 76		
Express.....	305 21		
Telegraphing.....	584 67		
Telephone messages.....	18 25		
Telephone rent.....	30 00		
Cab hire.....	3 50		
Car fare.....	70 00		
		706 42	
Subscriptions.....	233 15		
Advertising.....	7,751 29		
Typewriter, rents and repairs.....		7,984 44	
Whitson, J. F., traveling expenses.....	18 60		
Yates, Geo. W., do.....	101 17		
Ledger, W. R., do.....	5 50		
		451 75	
Extra clerks.....		125 27	
Hearst, W. H., legal expenses.....	25 00		
Sundries.....	66 05		
		7,872 23	
		91 05	
			29,671 71
			578,599 83

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister.

APPENDIX No. 7.

STATEMENT of Expenses on account of various Services, under the direction of the Department of Lands, Forests and Mines, for the year 1907.

Name.	\$	c.	\$	c.	\$	c.	
DIAMOND DRILL.							
Roche, E. K., salary	1,749	96					
Disbursements.....	140	59					
			1,890	55			
Mackenzie, R. J., salary.....	190	00					
Disbursements.....	241	75					
			431	75			
MacVicar, J. A., salary.....	643	47					
Disbursements.....	213	42					
			856	89			
Labor	3,599	45					
Freight, express, etc.....	359	58					
Advertising	5	03					
			3,964	06			
Supplies.....	1,865	99					
Carbons	3,424	85					
Drill furnishings	904	94					
			6,195	78			
					13,339	03	
MINING SCHOOLS					1,155	46	
ALGONQUIN PARK					11,166	46	
RONDEAU PARK					3,508	96	
TEMAGAMI TIMBER CUTTING					1,560	10	
ENGLISH JOURNALISTS					3,376	49	
VETERANS' COMMUTATION					46,850	00	
CANADIAN MINING INSTITUTE					1,000	00	
						81,956	50

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister.

APPENDIX No. 8.

WOODS AND FORESTS.

Statement of revenue collected during year ending December 31st, 1907.

	\$	C.
Amount of western collections at department	\$ 980,922	46
do do Quebec	37,673	54
do of Belleville collections.....	49,084	99
do of Ottawa collections	151,370	33
	<hr/>	<hr/>
	\$1,219,051	32

J. A. G. CROZIER,
Chief Clerk in charge.

AUBREY WHITE,
Deputy Minister.

APPENDIX No. 9.

PATENTS BRANCH.

Statement of Patents, etc., issued by the Patents Branch during the year 1907.

Crown Lands	670
School do	49
Mining do	286
Public do (Late Clergy Reserves)	14
Free Grant Lands (A. A.)	91
do (under Act of 1880)	323
Rainy River Lands (Mining and Crown)	147
Mining Leases	58
Licenses of Occupation	17
Rondeau Harbor Leases	5
Crown Leases	18
Crown Lands (University) Patents	21
Under Act of 1901 (Veterans)	1,024
Temagami Leases	4
Pine Patents	3
Total	<hr/> 2,730

CHARLES S. JONES,
Chief Clerk.

AUBREY WHITE,
Deputy Minister.

APPENDIX

WOODS AND

Statement of Timber and Amounts accrued from Timber Dues, Ground

Agencies.	Area covered by timber license	QUANTITY AND					
		Saw logs.				Boom and Dimen	
		Pine.		Other.		Pine.	
	Square miles.	Pieces.	Feet B. M.	Pieces.	Feet B.M.	Pieces.	Feet B. M.
Western Timber District.....	11,741 $\frac{3}{4}$	12,392,287	556,957,014	1,488,902	53,984,471	257,554	33,507,027
Belleville Timber District.....	1,233 $\frac{1}{2}$	389,404	27,169,200	342,561	14,309,112	3,883	1,013,446
Ottawa Timber District.....	5,755	2,537,538	153,886,264	274,301	9,999,335	28,218	5,227,670
	18,730	15,319,229	738,012,478	2,105,764	78,292,918	299,655	39,748,143

GENERAL STATEMENT

Agencies.	Cordwood.							
	Cedar.		Hard.	Soft.	Tan Bark.	Railway Ties.	Posts.	Telegraph Poles.
	Pieces.	Lineal feet.	Cords.	Cords.	Cords.	Pieces.	Cords.	Pieces.
Western Timber District.....	5,051	147,421	11,379	17,116	20,156	1,958,683	118	4,847
Belleville Timber District.....	.....	.....	.....	.....	112	13,814	163	6,128
Ottawa Timber District.....	.....	2,305	454	6,581	.....	15,043	119	4,806
	5,051	149,726	11,833	23,697	20,268	1,987,540	400	15,781

J. A. G. CROZIER,
Chief Clerk in Charge.

No. 10.

FORESTS.

Rent, and Bonus during the year ending 31st December, 1907.

DESCRIPTION OF TIMBER.

sion Timber.		Square Timber.					Pine.	Piles.	Pile Timber.	
Other.		Pine.		Ash, Birch and Elm.						
Pieces.	Feet B. M.	Pieces.	Cubic feet.	Pieces.	Cubic Feet.	Lineal Feet.	Lineal feet.	Pieces.	Feet B. M.	
40,179	6,348,095	20,120	1,053,187	Ash 66	1,772					
				Birch 16	642					
				Elm 1	41			218,128	2,247	
5,119	784,430	.....	.....					.....	.....
6,902	710,316	.....	.....			779	.....	.....	.....
52,200	7,842,841	20,120	1,053,187	Ash 66	1,772	779	218,128	2,247	193,386	
			✓	Birch 16	642					
				Elm 1	41					

OF TIMBER.—Continued.

Stave Bolts.	Pulpwood.	Amounts Accrued.								
		Cords.	Cords.	Transfer bonus.	Interest.	Trespass.	Timber dues.	Bonus.	Ground rent.	Total.
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
3,148	67,080	2,179 10	3,303 45	12,592 62	1,035,427 03	214,267 30	41,727 00	1,309,496 50		
.....	45	81 10	283 79	708 62	37,430 62	.....	4,074 00	42,578 13		
.....	4,010	700 75	73 94	1,459 60	179,531 44	.....	19,217 00	200,982 73		
3,148	71,135	2,960 95	3,661 18	14,760 84	1,252,389 09	214,267 30	65,018 00	1,553 057 36		

AUBREY WHITE,
Deputy Minister.

APPENDIX No. 11.

STATEMENT of the work done in the Military Branch of the Department of Lands, Forests and Mines, during the year 1907.

Letters received	9,200
do written	8,500
Certificates issued	550
Maps issued in connection with certificates	2,500
Forms issued	500
Location Certificates issued	825
Locations made	875
Surrenders	1,025
References for Patents issued	1,044

R. H. BROWNE,
Clerk in Charge.

AUBREY WHITE,
Deputy Minister.

APPENDIX No. 12.

Statement of the number of Letters received and mailed by the Department
in 1905, 1906 and 1907.

Year.	Letters received.						Names indexed.	Orders-in-Council.	Returned Letters.	Letters, circulars and reports mailed from Department.
	Sales and Free Grants.	Surveys.	Woods and Forests.	Mines.	Totals.					
1905....	19,932	8,018	7,126	4,000	46,220	53,100	220	60	55,400	
1906....	21,525	11,490	9,620	7,702	50,337	59,250	262	80	60,000	
1907....	24,871	13,463	9,218	10,060	57,612	63,120	284	92	66,000	

FRANK YEIGH,
Registrar.

AUBREY WHITE,
Deputy Minister.

Appendix No. 13.

STATEMENT showing the number of Locatees and of acres located, of purchasers and of acres sold; of lots resumed for non-performance of the settlement duties; and of patents issued under "The Free Grants and Homesteads Act," during the year 1907.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Baxter	Muskoka	J. B. Brown, Bracebridge	13	1,484	14	86	8	18
Brunel	"	" "	2	200	.....	.....	2	.....
Cardwell	"	" "	4	508	.....	.....	5	4
Chaffey	"	" "	6	695	.....	.....	7	1
Draper .....	" .....	" "	.....	.....	.....	.....	.....	.....
Franklin	"	" "	4	494	4	15	7	5
Macaulay .....	" .....	" "	.....	.....	.....	.....	.....	.....
Medora	"	" "	3	300	.....	.....	4	7
Monck	"	" "	1	127	.....	.....	1	1
Morrison	"	" "	2	387	7	98	3	8
Muskoka	"	" "	2	187	4	69	2	5
McLean	"	" "	15	1,877	1	40	20	2
Oakley	"	" "	3	309	.....	.....	3	.....
Ridout	"	" "	14	1,757	1	14	18	2
Ryde	"	" "	2	676	.....	.....	5	2
Sherbourne	Haliburton	" "	6	504	.....	.....	.....	.....
Sinclair	Muskoka	" "	9	1,546	1	47	11	3
Stephenson	"	" "	1	85	.....	.....	7	.....
Stisted	"	" "	3	392	.....	.....	5	14
Watt	"	" "	1	103	.....	.....	1	.....
Wood	"	" "	8	1,283	.....	.....	7	6
Carling	Parry Sound	F. R. Powell, Parry Sound	5	901	7	59	10	16
Christie	"	" "	9	1,226	.....	.....	9	1
Conger	"	" "	10	1,296	3	271	6	9
Cowper .....	" .....	" "	.....	.....	1	8½	.....	.....
Ferguson	"	" "	2	301	.....	.....	3	.....
Foley	"	" "	4	550	3	85	2	11
Hagerman	"	" "	4	537	4	282	6	4
Humphry	"	" "	2	263	1	1½	2	2
Harrison .....	" .....	" "	.....	.....	17	50	.....	.....
McConkey	"	" "	5	673	2	133	5	2
M'Dougall	"	" "	7	783	6	19	5	9
McKellar	"	" "	1	200	.....	.....	.....	.....
McKenzie	"	" "	5	797	3	14	5	3
Monteith	"	" "	8	1,075	3	114	5	6
Shawanaga	"	" "	1	208	18	64	.....	21
Wilson	"	" "	5	902	.....	.....	4	4
Chapman	"	Dr. J. S. Freeborn, Maganetawan	4	338	4	131	3	7
Croft	"	" "	6	583	3	78	8	3
Ferrie	"	" "	3	295	.....	.....	4	1
Gurd	"	" "	9	1,137	2	27	6	4
Lount	"	" "	5	686	6	19	4	10
Machar	"	" "	28	3,948	.....	.....	18	5
Mills	"	" "	7	1,029	2	132	3	4
Pringle	"	" "	2	421	.....	.....	1	.....
Ryerson	"	" "	6	680	1	100	5	4
Spence	"	" "	5	719	.....	.....	5	3
Strong	"	" "	5	500	.....	.....	4	4

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Armour	Parry Sound..	E. Handy, Emsdale	2	309	.....	3	3	
Bethune.....	"	" "	5	658	2 43	15	7	
Joly	"	" "	5	880	.....	.....	3	3
McMurrich	"	" "	11	1,375	2 110	4	5	
Perry	"	" "	3	400	2 200	7	7	
Proudfoot	"	" "	1	100	.....	4	6	
Chisholm.....	Nipissing	J. S. Scarlett, Powassan..	15	1,922	.....	5	4	
Hardy	Parry Sound..	" "	4	687	6 65	4	6	
Himsworth.....	"	" "	26	4,356	6 77	28	6	
Laurier	"	" "	11	1,817	2 15	12	4	
Nipissing	"	" "	10	1,210	6 32	11	7	
Patterson	"	" "	4	592	1 20	....	5	
Anson.....	Haliburton..	R. H. Baker, Minden...	1	96	.....	1	....
Glamorgan	"	" "	1	98	.....	8	....
Hindon	"	" "	1	151	1 4	2	1	
Lutterworth.....	"	" "	3	389	.....	4	3	
Minden	"	" "	2	183	1 4	2	7	
Snowdon.....	"	" "	5	505	.....	4	....
Stanhope	"	" "	2	160	2 113	1	2	
Austruther	Peterboro	T. G. Eastland, Apsley..	1	100	2 78	....	4	
Burleigh, N.D.	"	" "	4	440	.....	.....	1	
" S.D.	"	" "	1	86	.....	.....	.....
Chandos	"	" "	2	292	2 29	3	2	
Methuen	"	" "	1	100	.....	1	1	
Cavendish.....	"	Jas. Wilson, Kimmount....	3	204	1 3	6	1	
Galway	"	" "	1	111	.....	1	3	
Cardiff.....	Haliburton	J. H. Anderson, Tory Hill	3	387	.....	3	3	
Monmouth	"	" "	7	497	.....	6	5	
Bangor	Hastings	" "	3	325	3 48	....	1	
McClure	"	" "	4	543	1 4	....	5	
Wicklow	"	" "	6	890	1 22	5	2	
Carlow	"	J. R. Tait, L'Amable ...	2	288	.....	.....	1	
Cashel	"	" "	2	200	.....	1	....
Dungannon	"	" "	3	201	.....	4	2	
Faraday	"	" "	6	654	2 219	7	2	
Herschel	"	" "	4	516	.....	1	3	
Limerick .....	" .....	" "	.....	.....	.....	.....	.....
Mayo	"	" "	7	1,057	.....	5	....
Monteagle	"	" "	7	748	1 8	6	4	
Wollaston .....	" .....	" "	.....	.....	.....	.....	.....
Algona, S.....	Renfrew	Adam Prince, Wilno.	2	290	4	3	1	
" N.	"	" "	1	204	5 103	1	1	
Brougham	"	" "	3	407	.....	.....	.....
Brudenell	"	" "	10	1,010	.....	5	1	
Burns .....	" .....	" "	.....	.....	.....	.....	.....
Grattan	"	" "	6	542	.....	4	1	

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed	No. of patents issued.
Griffith	Renfrew.....	Adam Prince, Wilno.....	10	1,301	3	73	4	6
Hagarty.....	"	" "	4	495				
Jones	"	" "	7	945			4	3
Lyell	Nipissing.....	" "	4	269			1	1
Lyndoch	Renfrew.....	" "						
Matawatchan	"	" "						
Radcliffe.....	"	" "	13	1,897	2	37	2	3
Raglan	"	" "	2	281	1	4	1	2
Richards	"	" "	11	1,491	1	11	1	3
Sebastopol.....	"	" "	4	339				2
Sherwood	"	" "	17	2,049	2	86	8	4
Wilberforce	"	" "						
Alice	Renfrew.....	D. B. Warren, Pembroke..	1	68				2
Buchanan (pt)	"	" "	4	624	2	133	3	3
Fraser	"	" "	3	222			1	1
Head	"	" "	2	267			1	
Maria	"	" "						
McKay (pt)	"	" "						
Petawawa.....	"	" "	1	125			2	4
Rolph	"	" "						
Wylie (pt).....	"	" "	1	73	1	40	1	
Bonfield	Nipissing.....	J. M. Deacon, Mattawa...	7	691			4	6
Boulter (pt)	"	" "						
Calvin	"	" "	2	294			2	3
Cameron (pt)	"	" "	13	1,453	2	159		2
Ferris	"	" "	11	1,069	1	25	8	5
Lauder (pt)	"	" "	6	905	1	8		
Mattawan	"	" "	5	745	2	429	1	1
Papineau	"	" "	11	1,199			5	6
Korah	Algoma	H. N. Young, S. Ste. Marie						
Parke	"	" "	1	156				1
Prince	"	" "	7	1,040			8	
Plummer	"	Thos. Buchanan, Thessalon	2	331	1	19		3
do add.	"	" "						
St. Joseph Isl'd	"	W. E. Whybourne, Marksville	15	1,669	5	103	19	3
Blake	Thunder Bay .	H. A. Keefer, Port Arthur.	9	1,320			13	8
Conmee	"	" "	13	1,990	3	166	27	5
Crooks	"	" "	2	352	1	160	2	
Dawson Rd.	"	" "						
Dorion	"	" "	31	4,455	1	160	28	2
Gillies	"	" "	8	1,284	1	173	10	4
Gorham	"	" "	19	3,365	4	182	29	4
Lybster	"	" "	16	2,565	3	168	20	9
Marks	"	" "	16	2,518	3	7	13	2
McIntyre	"	" "	19	2,786	1	1	19	3
McGregor	"	" "	2	312				3

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resummed.	No. of patents issued.
O'Connor	Thunder Bay.	H. A. Keefer, Port Arthur	27	4,270	9	684	....	4
Oliver	"	" "	8	1,243	....	....	6	9
Paipoonge N.R.	"	" "	6	652	....	....	9	1
" S.R.	"	" "	11	1,256	3	210	12	4
Pardee .....	"	" "	....	....	....	....	....	....
Pearson	"	" "	17	2,731	1	179	25	5
Scoble	"	" "	7	1,072	2	13	8	4
Strange	"	" "	10	1,516	2	26	18	5
Atwood	Rainy River ..	Wm. Campbell, Stratton.	....	....	....	....	....	....
Blue	"	" "	23	3,681	6	248	25	5
Curran	"	" "	5	814	....	....	6	1
Dewart	"	" "	1	205	1	35	....	7
Dilke	"	" "	1	60	3	137	1	3
Morley	"	" "	2	203	2	44	2	4
McCrosson	"	" "	23	3,505	1	124	21	5
Nelles	"	" "	12	1,858	8	266	12	5
Pattullo	"	" "	7	885	5	128	6	6
Roseberry .....	"	" "	....	....	....	....	....	....
Shenstone	"	" "	2	342	6	180	3	7
Spohn	"	" "	16	2,433	1	17	5	9
Sutherland	"	" "	13	2,202	....	....	8	5
Sifton	"	" "	2	320	2	230	8	6
Tait	"	" "	14	2,045	2	6	8	12
Tovell	"	" "	40	6,539	4	271	15	5
Worthington .....	"	" "	....	5	257	....	....	....
Aylsworth	"	Alex. McFayden, Emo..	3	454	2	369	2	7
Barwick .....	"	" "	....	....	....	....	....	....
Burriess	"	" "	16	2,495	5	234	18	7
Carpenter	"	" "	11	1,818	7	132	10	12
Crozier	"	" "	10	1,506	4	188	6	1
Dance	"	" "	27	4,307	3	240	8	1
Devlin	"	" "	2	324	2	44	2	6
Dobie	"	" "	6	967	5	298	10	5
Fleming .....	"	" "	....	....	....	....	....	....
Kingsford	"	" "	19	3,104	4	78	18	6
Lash	"	" "	6	972	6	14	8	9
Mather	"	" "	9	1,453	10	536	8	13
Miscampbell	"	" "	15	2,374	1	41	14	6
Potts	"	" "	6	966	1	1	5	3
Pratt	"	" "	10	1,613	3	130	8	4
Roddick	"	" "	1	160	....	....	....	2
Richardson	"	" "	1	159	1	40	2	2
Woodyatt	"	" "	1	154	....	....	1	1
Aubrey	"	R. H. Prouger, Dryden .	14	1,887	9	935	2	8
Eton	"	" "	12	1,743	1	40	2	7
Langton .....	"	" "	....	....	....	....	....	....
Rugby .....	"	" "	....	....	....	....	....	....
Sanford	"	" "	9	1,388	2	200	2	7
Vanhorne	"	" "	10	1,495	4	280	2	6

Appendix No. 13.—Concluded.

Township.	District or County.	Agent.		No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patients issued.
Wainwright ..	Rainy River ..	R. H. Pronger, Dryden ..	10	1,271	2	240	1	3	
Zealand	"	"	5	520	6	635	1	7	
Melick	"	C. W. Belyea, Kenora			6	772			
Pellatt	"	"	8	1,227	3	56			3
Balfour	Sudbury	J. K. MacLennan, Sudbury ..	3	454	2	200			4
Bleizard	"	"	12	1,687					4
Broder	"	"	4	653	2	27			2
Capreol W. $\frac{1}{2}$..	"	"	18	2,205	1	28	1		3
Chapleau	Algoma	"							
Hanner	Sudbury	"	3	405	1	2			2
Garson	"	"	10	1,323	4	22			9
Neelon	"	"	7	1,110	1	92			14
Rayside	"	"	7	996	2	45			7
Appleby	"	E. A. Wright, Warren ..	1	161	3	352			3
Casimir	"	"				2	316		
Dunnet	"	"				1	160		
Hagar	"	"							
Jennings	"	"							
Kirkpatrick ..	Nipissing	"				1	156		
Ratter	Sudbury	"	1	160	1	160			
Caldwell	Nipissing	J. A. Phlion, Sturgeon Falls ..				3	448		
Cosby	Sudbury	"							
Grant	Nipissing	"							
Macpherson ..	"	"							
Martland	Sudbury	"				2	260		
Springer	Nipissing	"				4	480		
Sabine	Nipissing	Unattached	4	800					4
Abinger	Lennox and Addington	Chas. Both, Denbigh	2	200					
Clarendon (pt)	Frontenac	"	2	248	1	4			1
Denbigh	Lennox and Addington	"	1	191					1
Canonto S.	Frontenac	"							
" N.	"	"							
Miller (pt)	"	"	1	100					
Palmerston(pt)	"	"	1	95					
	Total		1,282	180,864	393	16,608	970	736	

W. C. CAIN,
Clerk in Charge.

AUBREY WHITE,
Deputy Minister.

APPENDIX No. 14.

Statement of Municipal Surveys for which instructions issued during the year 1907.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.	Date when confirmed R. S. O., 1897, Cap. 181, secs. 10 to 15 inclusive.
1	H. J. Bowman..	660	August 7, 1907.	To survey the original road allowance between the 3rd and 4th concessions of the township of Garafraxa, situate between the east, otherwise called the northeast halves of lots 11, 12 and 13, in the 3rd concession, and the west, otherwise called the southwest halves of lots 11, 12 and 13, in the 4th concession, of the said township, and to have the said road allowance marked by permanent stone or iron boundaries; and if the original monuments cannot be found at the corners of these lots to make the survey between the nearest undisputed points on said road allowance.	
2	Thos. Byrne....	661	September 24, 1907.....	To survey the block of land situate in the town of Blind River bounded by Michigan Ave., Hanes Ave., Lakeside Ave., and Centre Street, and to define the same by permanent monuments planted at the angles of the said block as well as elsewhere along the lines of said block as may be necessary. Enclosed herewith is a part of plan No. 180 of the town of Blind River, showing with a red cross the angles of the said block, which has been forwarded to this Department by the Municipal Council of Blind River.	
3	E. T. Wilkie....	662	October 3, 1907	To survey the line between lots 5 and 6, concession 3, in the township of Hinchinbrooke, in the county of Frontenac, and to plant permanent monuments at the front and rear angles of said line.	

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister Lands and Forests.

APPENDIX No. 15.

Statement of Municipal Surveys confirmed during the year 1907.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.	Date when confirmed under R. S. O., 1897, chap. 181, secs. 10 to 15 inclusive.
1	A. S. Code.....	659	March 23, 1907	To survey the allowance for road between the rear of lots on the Middle Road and the 3rd concession extending from the town line between the townships of Aldborough and Orford, northwesterly across lots 1, 2 and part of 3, to a point where the deviation of the concession road allowance between the 3rd and 4th concessions of Orford strikes said road allowance in rear of the lots along the Middle Road, and to have the said road allowance marked on either side by permanent monuments.	October 14th, 1907.

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister Lands and Forests.

APPENDIX No. 16.

Statement of Crown Surveys in progress during the year 1907.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount paid. \$ c.
1	May 31, 1906.	J. J. Francis.....	Survey of township of Temple, District of Rainy River.....	1,500 00
2	July 10, 1907.	J. H. Burd	Survey of township of Jamieson, District of Algoma.....	1,750 00
3	July 10, 1907.	J. H. Burd	Survey of township of Jessop, District of Algoma	1,750 00
4	May 6, 1907.	Thomas Bryne ...	Survey of township of Bayly, District of Nipissing.....	2,000 00
5	May 6, 1907.	Walter Beatty....	Survey of township of Devitt, District of Algoma.....	3,800 00
6	May 6, 1907.	Walter Beatty....	Survey of township of Staunton, District of Algoma.....	3,800 00
7	May 6, 1907.	E. D. Bolton	Survey of township of Reaume, District of Algoma	1,700 00
8	May 30, 1907.	J. S. Dobie.....	Survey of 3 blocks Thunder Ray branch, G.T.P. Ry., Rainy River.....	5,550 00
9	May 25, 1907.	T. Fawcett.....	Survey of 4 blocks Thunder Bay branch, G.T.P. Ry., Thunder Bay	6,450 00
10	May 20, 1907.	W. Galbraith	Survey of township of Leitch, District of Algoma	4,000 00
11	May 30, 1907.	J. J. Dalton.....	Survey of 3 blocks Thunder Bay branch, G.T.P. Ry., Rainy River	3,000 00
12	May 20, 1907.	T. H. Dunn.....	Survey of township of Mabee, District of Algoma	2,650 00
13	May 20, 1907.	T. H. Dunn.....	Survey of township of Laidlaw, District of Algoma	2,000 00
14	June 16, 1907.	T. D. Green	Survey of township of Mountjoy, District of Algoma	2,450 00
15	June 16, 1907.	T. D. Green	Survey of township of Godfrey, District of Algoma	1,250 00
16	May 6, 1907.	Jas. Hutcheon...	Survey of township of Barker, District of Algoma	2,800 00
17	May 6, 1907.	Jas. Hutcheon...	Survey of township of Eibler, District of Algoma	2,800 00
18	May 27, 1907.	L. V. Rorke.....	Survey of township outlines west of Montreal River, District of Nipissing	7,500 00
19	Dec. 9, 1906.	J. Cozens.....	Survey of boundary, timber berth 22, range 10, north of Curtis, District of Algoma	950 00
20	Oct. 21, 1907.	J. H. Smith.....	Survey of town site Smyth, District of Nipissing.....	500 00
21	April 18, 1907.	E. Seager.....	Survey of timber berths in Rainy River District	1,000 00
22	May 15, 1907.	A. F. Wells	Survey of township of Kennedy, District of Nipissing	4,500 00
				\$63,700 00

GEORGE B. KIRKPATRICK,
Director of Surveys.AUBREY WHITE,
Deputy Minister Lands and Forests.

APPENDIX No. 17.

Statement of Crown Lands surveyed, completed and closed during the year 1907.

Number.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount paid.	No. of acres.
1	May 15th, 1906	Walter Beatty	Survey of township of Gallagher, District of Algoma	\$ c. 246 32	23,079
2	May 15th, 1906	Walter Beatty	Survey of township of Strathearn, District of Algoma.....	76 76	22,522
3	May 15th, 1906	W. Galbraith	Survey of township of Clute, Dis- trict of Algoma	187 30	51,873
4	June 11th, 1906	T. J. Patten	Survey of portion of boundary be- tween Ontario and Quebec.....	3,087 73½	
5	June 11th, 1906	T. J. Patten.....	Survey of township of Bowyer, Dis- trict of Nipissing	2,010 10	22,935
6	July 6th, 1906	E. Seager	Survey of township of Redditt, Dis- trict of Rainy River.....	429 68	23,183½
7	Dec. 29th, 1906	De Morest & Stull.	Survey of timber berths WD 1 and WD 2, south of Ridout, District of Algoma.....	1,251 69	
8	Jan. 18th, 1907	W. W. Stull	Survey of water power on Sable River, District of Algoma	65 50	
9	Feb. 1st, 1907	Speight and Van Nostrand	Survey of timber berths west of Onaping Lake, District of Algoma	1,414 85	
10	Mar. 16th, 1907	L. V. Rorke	Survey of residue of township of Coleman, District of Nipissing...	1,481 80	14,818
11	April 18th, 1907	E. Seager.....	Survey of timber berths on Eagle and Clear Water Lakes, District of Rainy River.....	853 70	
12	May 6th, 1907	Speight and Van Nostrand	Survey of base and meridian lines, District of Algoma.....	13,503 23	
13	May 6th, 1907	James L. Morris ..	Survey of township of McCowan District of Algoma.....	5,190 30	51,903
14	May 6th, 1907	Alex. Niven	Survey of boundary between Terri- torial Districts of Algoma and Thunder Bay.....	9,000 00	
15	May 6th, 1907	H. J. Beatty	Survey of township of McCrae, Dis- trict of Algoma	5,185 10	51,851
16	May 6th, 1907	E. D. Bolton	Survey of township of Hanna, Dis- trict of Nipissing	3,220 56	23,004
17	May 6th, 1907	Cavana & Watson..	Survey of township of Colquhoun, District of Algoma.....	5,611 50	51,615
18	May 6th, 1907	A. S. Code	Survey of the township of Glack- meyer, District of Nipissing	6,071 80	51,718
19	May 6th, 1907	J. W. Fitzgerald..	Survey of the township of Kendrey, District of Algoma.....	6,066 90	51,659
20	May 31st, 1907	DeMorest & Stull.	Survey of two blocks of timber south of Windemere Lake, Dis- trict of Algoma.....	958 08	
21	June 11th, 1907	J. J. Newman....	Survey of base and meridian lines near Larder Lake, District of Nipissing.....	1,294 18	
22	June 11th, 1907	T. J. Patten	Survey of base line District of Nipis- sing (from north-east angle of Pur- vis to Int. boundary)	1,236 12	
23	June 11th, 1907	J. J. Newman	Survey of base and meridian lines, District of Nipissing.....	8,163 65	
24	June 22nd, 1907	James Dickson....	Inspection of surveys, 1907.....	2,798 73	
25		James Dickson....	Transport of three canoes	11 25	
26	July 11th, 1907	J. W. Fitzgerald..	Survey of township of Macdiarmid, District of Algoma.....	3,532 26	23,088
27	July 17th, 1907	L. O. Clarke.....	Survey of burnt areas north of township of Osborne, District of Nipissing	471 04	

APPENDIX No. 17.—*Concluded.*

Number.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount paid.	No. of acres.
28	June 14th 1907	T. J. Patten	Survey of township of Purvis, District of Nipissing	2,708 86	15,746
29	Dec. 30th, 1906	A. T. Ward	Survey of timber berths on line of Transcontinental Railway, District of Rainy River	2,211 60	
30	July 23rd, 1907	A. L. Russell	Survey of Dog Lake Dams in District of Thunder Bay	864 87	
31	June 10th, 1907	Thomas Byrne....	To survey north boundary of Mulligan and boundary between Skead and Rattray	621 30	
32		James Dickson....	Amount for canoe purchased from A. J. Cameron..... C. Tarling & Co., mounting maps .. E. H. Harcourt & Co., lithographing maps. Rice Lewis & Son, iron posts..... T. D. Wardlaw, survey water power on lot 9, con. 6, Macaulay .. Rice Lewis & Son, express on posts. Dr. Malcolm, services <i>re</i> drowning of Thos. Fletcher, of O.L.S. Code's party..... King's Printer, stationery	40 00 509 70 7,747 50 410 30 25 00 5 85 136 50 78 30	
				98,779 91	478,994½

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

(Appendix No. 18.)

BOUNDARY LINE BETWEEN ALGOMA AND THUNDER BAY, NORTH OF CANADIAN PACIFIC RAILWAY

TORONTO, November 28th, 1907.

SIR,—I have the honor to submit the following report on the survey of one hundred and twenty miles of the boundary line between the Districts of Algoma and Thunder Bay from its intersection with the Canadian Pacific Railway due north towards the Albany River, under instructions from your Department, dated, the 6th of May, 1907.

I left Toronto on the fourth of June last and proceeded to White River Station on the Canadian Pacific Railway, the initial point of my survey, being about three miles west of that place, at the centre line of the said railway's right of way, where it is intersected by the meridian of eighty-degrees twenty minutes west longitude, as laid down by Ontario Land Surveyor, Thomas B. Speight, in October, 1902, said point of intersection being in latitude forty-eight degrees, thirty-six minutes and forty seconds north.

After obtaining the necessary observations I commenced the survey on the 7th of June and ran north astronomically from day to day until the 7th of September when the work was discontinued at the end of the one hundred and twentieth mile, the reason for this being that a number of the men in my employ were out of footwear and as the country was very wet from the almost continuous rainfall of the summer they refused to go farther.

After caching the remainder of my supplies (about twenty-five hundred pounds), I returned via the English River, Long Lake and the Pic River to the Canadian Pacific Railway at Heron Bay, arriving there on the 20th of September and at Toronto two days later.

I had a party of twenty-six all told, six of them being Indians and these were almost the whole time engaged in canoeing supplies from Montizambert to Obakamaga Lake and from Heron Bay to English River where the line was to cross these waters. About ten of the men were engaged in packing the supplies and moving the camp outfit along the line. My assistant was Walter Smith, O.L.S. of Lindsay and Mr. A. L. Parsons of Toronto University accompanied the party as geologist.

The survey was made in accordance with instructions in every particular. An iron post one and seven-eighths inches in diameter and three feet in length marked "Algoma" on the east, "Thunder Bay" on the west and "R" on the south was planted along side a pitch pine post, similarly marked, six inches square and four and a half feet high in a stone mound at a distance of two chains and twenty-four links north of the centre line of the railway on the northern limit of the right of way being one hundred feet from the centre line measured at right angles therefrom.

Wooden posts were planted at the end of every mile marked with a scribe iron, the number of the miles on the south side, "A" on the east side and "T.B." on the west side, and at the end of every six miles an iron post was planted alongside the wooden post similarly marked with a cold chisel, stone mounds were built around all posts whenever stones could be obtained and bearing trees taken, marked "B.T." and distance and direction noted from the post wherever there were trees standing.

Where the end of a mile came in a lake or river, the posts were planted on the nearest land and distance noted. The line was well cut out and well blazed.

Observations for Azimuth were frequently taken. The magnetic variation of the needle was fairly steady at from two to four degrees west.

GENERAL DESCRIPTION.

The line for the first seventy-five miles passed through a rough rocky and broken country of little value for agricultural purposes. Hills from two hundred to four hundred feet and sometimes more in height were often met with. Large areas have been burnt over and timber blown down in many places making the work of getting a line through it or over it very difficult and the packing of supplies along the line a very expensive matter.

Some groves of banksian pine (often called pitch or jack pine) fit for railway ties were met with, but as a rule the timber is not of much value along this part of the line. There is, however, a considerable amount of spruce fit for pulpwood in the swamps between the hills.

The height of land between Lake Superior and Hudson's Bay was crossed on the thirty-first mile, a few chains south of Obakamaga Lake.

The clay belt was entered on the eightieth mile and continued as far as the line was run, the timber being chiefly spruce from four to fourteen inches in diameter with tamarac, balm of Gilead, poplar, white birch and some cedar. There is not much of the latter however, in the country. It is mostly found along the rivers and creeks. Much of the land on these forty miles was covered with deep moss, but this can be easily burnt off as settlement takes place upon completion of the National Trans-continental Railway which was crossed on the ninety-seventh mile. No construction work has yet been done on this undertaking near the boundary line.

The Pegutchewan River was crossed on the seventy-ninth mile. It was over two chains wide and quite deep, flowing easterly with rapid current and many rapids.

Flint River on the one hundred and twelfth mile about two chains in width, joins the English River about two miles east of the line.

The English River was ten chains wide where the line crossed it at the end of the one hundred and twelfth mile flowing to the Albany with rapid current over limestone rock. On this river there are many rapids and falls making it difficult to ascend with canoes, the distance to Long Lake being about sixty miles up stream.

At the one hundred and twentieth mile the timber was spruce and tamarac and smaller than farther south.

Numerous lakes were crossed on the first seventy-five miles of the line, many of them containing fish of the usual kinds, pike, pickerel, etc., speckled brook trout were met with in one stream on the thirty-ninth mile. Obakamaga Lake on the thirty-first mile is a beautiful lake of clear water flowing to the Albany River and is on the canoe route from Montizambert Station on the Canadian Pacific Railway to the Albany River and Hudson's Bay.

GAME.

Moose were frequently seen and a few cariboo. Partridge were not much in evidence, signs of fur bearing animals were often met with, otter, mink, marten, etc. The line passes through the trapping ground of the Indians

from the different reserves along the Canadian Pacific Railway and Lake Superior and Long Lake. A few bears were seen, but wolves were neither heard or seen.

I saw no white or red pine in the country along the line.

No minerals were met with. The Laurentian formation was the principal rock along the line. The first limestone met with was at the Flint and English Rivers. There were no heavy frosts during the survey and the finest weather we had was during the first and second weeks of September. I think the remainder of the line to Albany River could be best run during the winter.

Herewith will be found the field notes and plan of survey and account in triplicate.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) ALEXANDER NIVEN,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,

Toronto, Ont.

(*Appendix No. 19.*)

BASE AND MERIDIAN LINES, DISTRICT OF ALGOMA.

TORONTO, November 20th, 1907.

SIR,—We have the honor to submit the following report on the survey of certain base and meridian lines forming the outlines of townships nine miles square, lying between Missanabie River and the western boundary of the Territorial District of Algoma, made by us during the past summer, under instructions from your department, dated 6th of May, 1907.

The instructions were received on the 20th May, and we lost no time in completing the arrangement of details, but, owing to the unusually late opening of spring, it was found advisable to defer starting for a fortnight.

With ten men from the County of York and vicinity we set out from Toronto on the 5th of June and were joined by ten more men at Missanabie, from which point we went by canoe route about 150 miles to the starting point of the work. This journey was by way of Dog Lake, to the height of land and thence by Crooked Lake, Brunswick Lake and Missanabie River occupied from the 8th to the 18th of June and included twenty-eight portages.

We commenced the survey on the 19th of June, at the end of the ninth mile of our meridian line run last season, north astronomically, from the northeast angle of the township of Devitt, or the northwest angle of the township of Elber. At the north end of this meridian, we found the tamarac post six inches square referred to in the instructions marked "IX" on the south side and we re-planted the post, marking thereon the names of the adjoining townships of Sisk, Sankey, Mulvey and Shannon. Beside the tamarac post we planted an iron post one and seven-eighth inches in diameter and marked the names of the above four townships on both posts.

Beginning the line at the northwest angle of the township of Sankey, we ran due east astronomically for a distance of nine miles on the chord of a parallel of latitude passing through the starting point, planting a

wooden post at the end of each mile with the number of the mile marked on the west side. At the end of ninth mile we planted, beside the wooden post, an iron one, similar to the above noted and marked on the proper side of both posts, the names of the townships of Sisk and Sankey.

Returning to our starting point we ran due west astronomically sixty-three miles of base line on nine mile chords of a parallel of latitude, planting a wooden post at the end of each mile, and at intervals of nine miles, iron posts were planted in addition.

From the ends of the ninth, eighteenth, twenty-seventh, thirty-sixth, forty-fifth and fifty-fourth miles on this base line we ran meridian lines north and south, nine miles from the base line. On these lines, posts were planted at the end every one and one half miles corresponding with the depth of two concessions in the new system of township surveys and on these posts we marked the distance, north or south of the base line and at the end of the ninth mile of each meridian line we planted an iron post alongside the wooden post, so far as the supply of iron posts lasted. The south angles of the township of Studholme and the north angle of the township of Rogers were not marked by iron posts.

An exceptionally rainy season impeded the progress of the work and the desertion of three of the packers, near the end of the season, added to the disabling of two other men by accidents, so crippled our transport services that we were unable to continue the work over the large stretch included in the instructions. We, therefore ran—by using flying camps—the west boundaries of the townships of Gill and Auden, but were obliged to leave unrun the twenty-seven miles of base line necessary to connect with the boundary between the Territorial Districts of Algoma and Thunder Bay.

All lines run were well opened out and blazed, and bearing trees were blazed and noted.

Astronomical observations when required, were taken whenever the weather permitted, but during parts of the season the continuous cloudy and stormy weather rendered observations less frequent than was desirable. The observations were not in all cases entered in the field notes.

It may here be noted that the Azimuth Tables prepared by Mr. F. L. Blake for the Association of Ontario Land Surveyors and published in the Annual Report for 1906 were found of great service.

GENERAL FEATURES.

The tract embraced by this survey is eighteen miles wide by seventy-two miles long, being sixteen large townships with a total area of one thousand two hundred and ninety-six square miles or eight hundred and twenty-nine thousand, four hundred and forty acres. It lies in the valleys of the Missanabie, Kabinagagami, and Nagagami Rivers and is distant from one hundred and twenty-five to one hundred and fifty miles by canoe route north from that part of the Canadian Pacific Railway stretching from Missanabie Station to White River Station. Access is had by means of canoe routes on the three rivers above named, but all require experienced canoe-men for reasonable safe navigation.

The surface is slightly more undulating and high lying than that lying to the south and east reported upon by us last season and the swamps are smaller in extent, notwithstanding the exceptionally wet season of 1907. At a rough estimate fifty per cent. would be considered high lying, and, where wet, easily drained, the remainder being also good land, but requiring good drainage. The trend of the rivers being northward the general slope is in that direction, the undulations paralleling the rivers.

SOIL.

The soil is chiefly clay and clay loam with rare instances of sandy ridges. With the exception of rapids in the rivers and the shores of the larger lakes, few outcroppings of rock were seen.

Gravel was noted in one place and that in only small quantity. There is very little genuine muskeg, although the prevalence of moss would give one the impression that muskeg areas are numerous and large. As has been so frequently reported of the clay belt, the moss, resting as it does on solid clay, will readily be removed by fire when the land is required for settlement. Another feature noticed is the shallow hold, which the spruce and tamarac forest trees have upon the heavy clay soil, so that the removal of stumps and roots when the land has been cleared, will be easily effected. An example of this was seen near the north boundary of the township of Sankey, east of the Missanabie River, where a tract two or three miles in extent had been burned for the second time, probably two years ago, and the moss and stumps almost completely cleared away, showing an area of good clay soil apparently ready for the plough.

Drainage facilities will be found good as the numerous small streams tributary to the larger rivers have almost invariably a good rapid flow and fairly straight courses.

TIMBER.

Much of the country in this region was swept by fire about forty years ago, as we were informed by an Indian employed by us on the survey, and this statement was borne out by the rings of annual growth on the present timber. This timber is, of course, of comparatively small size, the growth being unusually dense. Spruce, tamarac, white poplar, white birch, balsam, and balm of gilead form the chief varieties and are in the above order as to predominance. Where the original forest remains, the timber is of larger size, particularly for a distance of one or two miles back from the rivers, where it again becomes somewhat inferior in size and quality. The largest trees seen near the rivers measured three feet in diameter at the stumps, but as a rule the diameter is from twelve to twenty inches. A few cedars of inferior size and quality are found along the rivers and creeks.

WATER.

Several fair sized lakes were seen. The Pewabiska (White Water) stretches from near the northwest corner of the township of Casgrain, across the breadth of the township of Hanlan and about half of the township of Stoddart, in four large bodies of water connected by "Narrows." This lake which has not hitherto been shown on official maps, is dotted with islands and contains abundance of pike, pickerel and whitefish. Apart from this, few lakes of importance were found, numerous lakes not being a characteristic of the clay belt.

The three rivers mentioned are fairly well known as canoe routes and some day the numerous rapids and falls will be harnessed to furnish power and light. Taken in order of position from the east side of the tract surveyed, the main rivers are as follows:—The Missanabie, the Mattawishquia, the Pewabiska, the Kabinagagami, the Nagagami and Nagagamichi.

The Missanabie, flowing northerly across the townships of Sankey and Sisk, in a fine stream of good water, about five hundred feet in width and four

to ten feet in depth with clay banks from ten to fifteen feet high, its current at this part is estimated at from three to four miles an hour. Three large islands, known as Skunk Islands, are situate near the boundary between the two townships referred to.

The Mattawishquia crosses the south boundary of the township of Casgrain near its centre and, flowing in a devious north-easterly course, across the townships of Casgrain and Mulvey, joins the Missanabie about two and a half miles north of the south boundary of the township of Sankey. Its breadth is from two hundred to two hundred and fifty feet, and depth three to eight feet, with numerous rapids and good current generally. The clay banks on either side average eight to ten feet in height.

The Pewabiska River has three distinct branches with their sources apparently in the townships of Stoddart, Hanlan and Casgrain respectively, the lake expansions of the same name as the river occurring in those three townships. Below these lakes the river has a breadth of about two hundred feet with a depth of from five to six feet. It crosses the township of Ritchie in a north-easterly direction, and at a distance of about twenty-five miles north-eastward, enters the Missanabie.

The Kabinagagami, sometimes called the Mamattawan, enters the township of Stu-nolme about three miles west of its south-east angle, and flowing in a generally northward course, crosses the north boundary of the township of Fushimi, eventually emptying into English River at Mamattawan Post about thirty-five miles farther northwestward. The breadth of this stream is from three hundred to three hundred and fifty feet, and depth from four to ten feet, with banks from ten to fifteen feet high, and, unlike the Pewabiska, it has few islands and lake expansions.

The Nagagami, which runs in a generally north direction, crosses the townships of McMillan, Fintry and Auden. Its breadth is from two hundred to two hundred and fifty feet, and depth about four feet, with rapid current. In the southern part of the township of McMillan, the banks are the usual clay, ten to fifteen feet high, but within the next four miles they rise to an altitude of from one hundred and forty feet to one hundred and fifty feet, decreasing again to fifty feet where the east boundary of the township of Fintry is crossed.

The Nagagamichi, in the township of Gill, is a rapid stream from one hundred and eighty to two hundred feet in width, and four to six feet in depth. Rapids are numerous, and near the confluence with the Nagagami there is a fall of about fifty feet in height, the roar of which is heard at a distance of nine miles.

We have no doubt that when these rivers are explored water powers of considerable importance will be found and the presence of lake expansions will give guarantee in most instances of continuity by storage.

MINERALS.

With few exceptions, the rock formation noted is Huronian and no indications of economic minerals were seen.

GAME.

Moose, red deer and caribou were seen from time to time during the season, and bear, beaver and marten were fairly numerous. Nearly all the rivers and larger lakes contain fish in abundance, including pike, pickerel and white fish, with speckled trout in some of the smaller streams.

GENERAL REMARKS.

For agricultural purposes, the lands embraced by this season's survey are fully equal to that to the south and east reported upon by us last year, not less than seventy-five per cent. being good farm land, needing only clearing and in some cases draining.

The National Transcontinental Railway line has been located in the townships of Hanlan, Stoddart, Studholme, Gill and McMillan, and when opened for traffic will give access to a vast area of fertile soil.

Accompanying this report, are a general plan, field notes and triplicate account.

We have the honor to be,

Sir,

Your obedient servants,

(Sgd.) SPEIGHT & VAN NOSTRAND,
Ontario Land Surveyors.

The Honorable,

The Minister of Lands, Forests and Mines,

Toronto.

(Appendix No. 20.)

BASE LINE EXTENDING FROM THE NORTH-EAST ANGLE OF THE TOWNSHIP OF PURVIS, DISTRICT OF NIPISSING, TO THE INTERPROVINCIAL BOUNDARY.

LITTLE CURRENT, Ont., November 15th, 1907.

SIR,—I have the honor to submit to you the following report on the survey of a base line running due east from the northeast angle of the township of Purvis, in the District of Nipissing, a distance of twenty-two miles and thirty-eight chains, to the interprovincial boundary, performed in accordance with instructions from your department, dated June 14th, 1907.

After establishing the north-east corner of the said township by planting an iron post, one and seven-eighths inches in diameter, beside the wooden one, and marking thereon "Purvis" on the southwest side, also the lot numbers, I commenced the survey of this base on the 29th of August, and ran east astronomically the above mentioned distance to its intersection with the inter-provincial boundary, at a distance of thirty-six chains and eighty-six links north of the ninety-seventh mile post on said boundary.

Wooden posts, six inches in diameter, were planted at the end of every mile, and two bearing trees were marked "B T." The bearing and distance from the posts to the trees were noted.

At the end of the third, ninth, fifteenth, eighteenth, twenty-first miles, and at the intersection with the boundary, iron posts one and one-quarter inches in diameter, and at the end of the sixth and twelfth miles, iron posts one and seven-eighths inches in diameter were planted beside the wooden ones. On both wooden and iron ones were marked in Roman numerals the miles reckoning from the initial point at said north-east angle of Purvis.

The line was run with a six-inch Burts solar compass and checked with three observations for meridian made with a transit at the eastern elongation of Polaris, details of which will be found in the accompanying field notes.

While returning on the base line to the township of Purvis, all the tallies were carefully counted in order to be certain that there was no miscount.

The first three miles is broken with rocky ridges and occasional tracts of boulders and sand. In some of the lower tracts there is good clay land. From the third mile to the end of the twelfth mile it is mostly clay land with a few ridges of boulders and sand.

From the twelfth mile to the boundary there is considerable sand and gravel and boulders with occasional tracts of clay.

The country generally is rolling. In the sixteenth mile there is an elevation of about one hundred feet. A very small percentage is muskeg.

Probably one-half of the country is fit for agriculture.

No indications of mineral were found.

The timber is black spruce, poplar, jack pine, balsam, white birch and balm of Gilead, also dry tamarac.

The black spruce, balsam and birch is from six to thirteen inches in diameter, poplar from six to twenty inches, and the jack pine mostly from five to fifteen inches. Some jack pine was found twenty-four inches in diameter in the fourteenth mile. There is very little balm of Gilead. The tamarac is fairly sound and a good size.

The magnetic variation for the first ten miles is about nine degrees and forty-five minutes west. The balance of the line averages about ten degrees west.

At fifty-three and sixty-two one-hundredths chains, on the east bank of a creek, in the fourth mile, a good pack trail to Lake Abitibi was crossed. It follows southerly along the east bank to about half a mile from the lake. It then crosses the creek and comes out on the west bank at the mouth. The distance along this trail from the base line to the lake is about three miles.

At forty-seven chains in the eighteenth mile, the line runs between two huge granite boulders lying close together on the east bank of a creek. The details are shown in the field notes. This will be a landmark for centuries to come.

Some delay was caused by the heavy rains. On the 18th of September, I returned to the township of Purvis and after a few days spent in completing that township I commenced my return journey on the 27th of September.

In the sandy portions of the country blueberries are very plentiful.

Accompanying this report will be found field notes, plan and account.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) T. J. PATTEN,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(*Appendix No. 21.*)

CERTAIN TOWNSHIP OUTLINES, WEST OF THE MONTREAL RIVER, IN THE TEMAGAMI FOREST RESERVE, DISTRICT OF NIPISSING.

TORONTO, Ontario, December 12th, 1907.

SIR.—I have the honor to submit the following report upon the survey of certain township outlines, west of the Montreal River, in the Temagami Forest Reserve, made by me under instructions from your department dated the twenty-seventh day of May, 1907.

On the 3rd day of June, after having procured a sufficient number of men and supplies, I proceeded from Latchford via the Montreal River to my starting point, being an iron post planted by Ontario Land Surveyor W. J. Blair on the south boundary of the township of Barr at its intersection with the easterly shore of the Montreal River.

From this point I ran a base line due west for a distance of more than twenty-two miles, defining the south boundary of the townships of Barr, Klock, Van Nostrand and Whitson, and being also the north boundary of the townships of Kittson, Dane, Leo and Rorke.

From the six-mile point on this line, which falls within the Mattawapika River, I located by traverse the production of a meridian line due north from this point to the shore on the westerly side of the said river at a distance of one mile sixty-five chains and forty links therefrom and produced the same to the southerly shore of the Montreal River, thus defining the boundary between the townships of Barr and Klock.

From the twelve-mile point I ran a line due north to the southwest corner of the township of Auld, defining the boundary between the townships of Klock and Van Nostrand, and also produced the same due south for a distance of three miles, defining the boundary between the townships of Dane and Leo for that distance.

From the eighteen-mile point I ran a line due north to the southwest corner of the township of Barber, defining the west boundary of the townships of Van Nostrand and Speight, it also being the east boundary of the townships of Whitson and Banks. I also produced the same due south for a distance of six miles, defining the west boundary of the township of Leo, it also being the east boundary of the township of Rorke. From this point I ran due west six miles, defining the south boundary of the township of Rorke, and thence due north to the southerly shore of Little Macobe Lake, defining the west boundary of the townships of Rorke and Whitson, it also being the east boundary of the townships of McGiffin and Trethewey.

From the northwest angle of the township of Klock, I ran a line due west to Little Macobe Lake, defining the south boundary of the townships of Speight and Banks, and from the twelve-mile point which was determined by triangulation to the north shore of Little Macobe Lake I ran a line due north to the southwest corner of the township of James, thus defining the west boundary of the townships of Banks and Willet, it also being the east boundary of the townships of Wallis and Roadhouse.

From the northwest angle of the township of Speight I ran a line due west six miles, defining the north boundary of the township of Banks, it being also the south boundary of the township of Willet.

From the southwest angle of the township of James I ran a line due west for five miles, marking for that distance the south boundary of the township of Mickle or the north boundary of the township of Roadhouse.

From the northwest angle of the township of James I ran a line due west six miles, marking the south boundary of the township of Farr, and thence north six miles more or less to the intersection with the south boundary of the township of Willison, which was produced due west from an iron post at the southwest angle of lot four, concession one, of the said township of Willison, on the east side of the Montreal River.

Good, substantial, squared wooden posts were planted at every mile throughout the survey, excepting where such point came within a lake or river; in such cases a witness post was planted at the shore with the proper chainage inscribed thereon. The mile posts were all properly marked with the mileage, numbered from the east and south from 1 M. to 6 M. for each

township boundary. At the township corners iron posts one and one-quarter inches in diameter were planted in addition to the wooden posts, and both were marked with the names of the several townships on the sides adjacent thereto. Where a township corner came within a lake or river, iron posts were planted on the shore and properly marked. These points may be enumerated as follows:—

1. On the east bank of the Mattawapika River on boundary between townships of Barr and Kittson.
2. On the west bank of the Mattawapika River on boundary between the townships of Klock and Dane.
3. On the west bank of the Mattawapika River on boundary between the townships of Klock and Barr.
4. On the south bank of the Montreal River on boundary between the townships of Klock and Barr.
5. On the north bank of Willow Island Lake at the southeast angle of the township of Rorke.
6. On the east bank of Little Macobe Lake on the boundary between the townships of Whitson and Banks.
7. On the west bank of the Montreal River at the northeast angle of the township of Farr.

PHYSICAL FEATURES.

In general the surface is broken, rough and rocky, the trend of the hills may be said to be northerly and southerly, though the water divides are very irregular and in many cases the hills break off abruptly. There is a decided exception to this irregularity, however, in what is known as Maple Mountain, which extends northerly and southerly through the centre of the townships of Rorke and Whitson and rises to an altitude of eight hundred or nine hundred feet above Lady Evelyn and Anvil Lakes; its easterly slope is gradual and the western slope is more in the nature of large steps with intervening rolling land or gradual descent. The western base at Gray's Lake and Little Macobe Lake is probably two hundred or two hundred and fifty feet above the eastern base.

Viewing the country from the several heights of land crossed during the course of the survey, the most noticeable features were the numerous small lakes and ponds and the several round and round-topped hills to be seen in every direction.

TIMBER.

The country is timbered with jack or banksian pine, spruce, poplar, and white birch, varying in size from twenty inches down, while the average run is from six to twelve inches in diameter. Some red and white pine is seen scattered throughout, but not in great quantities in any particular part. Other kinds of timber seen, but not in a general way, were cedar, balsam, tamarac (dead), ash and oak. The largest spruce is located along the river valleys: generally described, however, the ridges and high ground are covered with jack pine, poplar and birch, while the lower land is swampy and timbered with spruce.

During the course of the work I met Mr. E. Lalonde a few times (who, I understood, was making an estimate of the timber for your Department,) and gave him what assistance I could in the matter of canoe routes and general descriptions of the country gone over.

WATER POWERS.

The water powers worthy of recognition at the present time or those that might be developed for power transmission, which lie within the country traversed, are as follows:—

1. Mattawapika Falls, in the township of Barr over which all the waters tributary to Lady Evelyn Lake fall into the Montreal River, an estimated distance of twenty feet.

2. Helen's Falls, eighty feet, Centre Falls thirty-five feet, and Frank's Falls thirty feet, on the Lady Evelyn River and all within a distance of one and one-quarter miles are adapted for development to an extensive capacity. The fall is almost perpendicular in each case.

3. Indian Chute and Rapids, on the Montreal River, at the north boundary of the township of Barr, with an estimated fall of eighteen feet and five feet, respectively, is an ideal site for a power plant.

In addition to those above mentioned there are several rapids and falls from five to fifteen feet along the north and south branch of Bear Creek, Lady Evelyn River and Gray's River, which might be suitable for local mining or milling purposes.

ROCK FORMATION.

As this part of the Reserve has been given considerable attention and research by the Bureau of Mines within recent years the reports from that source on the Geological features will be much more conclusive and in detail, than any report I could make from such observations as it was possible for me to make.

Quartzite and quartzose schists of the Huronian formation extends throughout the south-western portion of the country surveyed.

Greywacke and slate were most prominent in the township of Barr and the the south-eastern part of Township of Klock.

Diabase gabbro and conglomerate were most noticeable along the west side of the Mattawapika River and in the townships of Willet, Mickle and Farr.

GAME.

Moose are plentiful, and signs of bear were frequently seen throughout the country. In two cases fresh beaver works were found, while mink were frequently seen by some of the party. The scarcity of partridge and duck was very noticeable as compared with former seasons.

Pike, pickerel, bass and trout were caught for camp use in some of the lakes, while in other waters it was impossible to secure any.

GENERAL CONDITIONS.

The season was late in opening, some of the lakes were not free from ice until the 1st of June, and the water was very high in the rivers and swamps during that month. The axemen and chainmen of the party were frequently wading in two or three feet of water while opening out and chaining the line across flooded land.

Rain storms and a cloudy atmosphere were prevalent during the months of July, August and September, and it was impracticable to secure as many observations for determining meridian as was desirable.

A great number of prospectors were met on the Reserve during the month of June, but a decided migration took place as the mosquito made his appearance.

The portages along the canoe routes are not in good condition, and those which I had occasion to use for portaging supplies over were improved to some extent.

Travelling by canoe being the only means of conveyance in the interior of the Reserve, the idea suggests itself that to improve the portages on several of the main canoe routes and clean up good camp grounds would be a beneficial outlay of money to the tourist, the prospector, and the ranger, and thus indirectly to the Crown.

Accompanying this report, I submit plan, field notes, affidavits and accounts.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) L. V. RORKE,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests, and Mines,
Toronto, Ont.

(Appendix No. 22.)

LARDER LAKE, AND THE WEST AND NORTH BOUNDARIES OF THE TOWNSHIP
OF HEARST, IN THE DISTRICT OF NIPISSING.

WINDSOR, Ontario May 30th, 1907.

Sir,—In compliance with instructions received from your department, dated March 28th, 1907, I have made a survey of Larder Lake, and the west and north boundaries of the township of Hearst, in the district of Nipissing.

I left Windsor on the morning of March 30th via Canadian Pacific Railway, and arrived at New Liskeard on the morning of March 31st, where I completed my supplies, and engaged what men I needed to complete my party. I left New Liskeard on the evening of April 3rd, going by Temiscaming and Northern Ontario Railway as far as Heaslip, thence by sleigh to Tomstown, thence to Larder Lake via Wilson's Trail, arriving at the lake at noon of Friday, April 5th, and having made camp at the narrows, I commenced the survey of the lake immediately.

The ice was good when I arrived, and continued perfectly safe until I completed the survey, although slush formed from four to eight inches deep, some of the warmer afternoons. Having completed the survey of the lake, I moved out to the continuation of Smith's tie line three miles north of the north-east angle of the township Catharine. From here I rechained and blazed the two miles of Smith's tie line and continued the same line north four miles farther, to the north-west angle of the township of Hearst, thence I ran due east five and one-half miles ($5\frac{1}{2}$) to where the said line intersects the west shore of Larder Lake proper, having cut off or ran across two bays as shown on the accompanying plan, I completed the whole of this work on the evening of Wednesday, April 24th, and having packed my goods and disposed of my excess supplies, I started for home, Thursday morning,

arriving in Tomstown the same night, thence to New Liskeard on Friday morning's train, and having settled with the men, I left on Friday evening's train arriving in Windsor on Saturday at three o'clock p.m.

In making this survey, I noted all the survey posts or lines I saw, and marked and numbered fourteen (14) trees or posts on prominent points around the lake. Having found and located so many survey and mining location posts, I did not deem it necessary to mark, and locate a very great number of other trees and posts.

I also located the position of all the islands in the lake, and marked one or more trees on each with a designating letter. I did not traverse the shore line of these islands and hence the shapes and areas given on the plan are only approximate, being as near the shape and size as my chainmen could estimate in walking around and locating them. The position of these islands as you will notice on the plan are all located from some point on the traverse line, the kind, and approximate size of trees marked, are all given on the plan and field notes.

In running the west boundary of the township of Hearst, I measured the line and set the posts one mile apart, marking them on the south side with the number of miles each is from the north-east angle of Catharine township. I planted a one and a quarter inch iron post three (3) feet long, painted at the bottom, forged at the top, painted red, and marked "III.M." on the south side at three (3) miles north of the north-east angle of the township of Catharine. I planted a one and seven-eighth inch iron post three (3) feet long, pointed at the bottom, forged at the top, painted red, and marked "Gauthier" on the northwest side, "McElroy" on the south-west side, "Hearst" on the south-east side, "McVittie" on the north-east side, and "VI.M." on the south side, at the northwest angle of the township of Hearst, alongside of a six (6) inch spruce post similarly marked. At, where the north boundary of the township of Hearst intersects the west shore of the first bay of Larder Lake, I planted a one and one-quarter inch iron post three (3) feet long, pointed at the bottom, forged at the top, painted red, and marked "II.M. 59c." on west side alongside of a five (5) inch cedar post similarly marked. At, where the north boundary of the township of Hearst intersects the second bay of Larder Lake, I planted a six (6) inch spruce post marked "III.M. 79c." on the west side. At, where the north boundary of the township of Hearst intersects the west shore of Larder Lake proper, I planted a five inch jack pine post marked "V. M. 39c 80l." on the west side.

The surface of this section of the country is quite uneven, particularly is this so in the neighborhood of Larder Lake.

The timber is quite small, consisting chiefly of poplar, balsam, spruce, birch, jack pine, and alder, being of little value except as firewood.

The principal part of all the country worked over, has been staked out in mining locations, but only a very small percentage of the claims staked have been as yet surveyed.

Accompanying this report, you will find plans, field notes, accounts, etc., all of which I hope will prove satisfactory to the department.

All of which is respectfully submitted.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) J. J. NEWMAN,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines.

Toronto.

(Appendix No. 23.)

BASE AND MERIDIAN LINES IN THE VICINITY OF LARDER LAKE IN THE DISTRICT OF NIPISSING.

WINDSOR, Ontario, December 7th, 1907.

SIR,—In compliance with instructions received from your department, dated June 11th, 1907, I have completed the survey of the Base and Meridian Lines in the vicinity of Larder Lake, in the district of Nipissing.

I left Windsor by the Canadian Pacific Railway on the morning of June 20th, and arrived at New Liskeard on the morning of June 21st, where I had made arrangements for my supplies and some men, and was thus able to complete arrangements during the day, and left for Englehart that evening, and was thus able to arrive at Boston on the evening of the 22nd. At Boston, I secured a few pairs of blankets and shoe packs, etc., for some of my men, and packed into the north-west corner of the township of Boston on Monday, June 24th, where I commenced the survey on Tuesday.

I commenced my survey at a one and seven-eighth inch iron post set beside a six inch spruce post in a cairn of stones, both marked on the north-east "Lebel," on the south "Con. VI.," on the south-west "Otto," on the south-east "Boston." Thence I ran the second base line east to its intersection with the second meridian.

I then returned to the northwest corner of Boston and ran the first meridian due north six miles, numbering the posts on the south side with the number of miles each was from the northwest corner of Boston. From the sixth mile post on the first meridian I ran the third base line due east until it intersected the third meridian, numbering the posts on the west side as shown on the accompanying map.

I then returned to the sixth mile post on the first meridian and continued it due north twelve miles 5.57 chains to the southerly boundary of the township of Barnet, which I intersected 24.88 chains west of the south-east corner of the said township.

I then moved north to the northeast corner of the township of Barnet, which is also the southeast corner of the township of Michaud, where I found a one and seven-eighth inch iron post set beside a seven inch spruce post marked on the northwest side "Michaud," on the southwest "Barnet," on the south "Con. VI.," on the north "XVIII. M. + 3.70c," on the west "Lot I. XII. M. + 6.83c." From the last mentioned corner I ran the fourth base line due east to the line between the Provinces of Ontario and Quebec, intersecting the third base line at 11 M. + 61.16 chains from the northeast corner of Barnet, and the interprovincial boundary 27.53 chains north of the 61st mile post on the said boundary.

Again I commenced the second meridian line at the one and seven-eighth iron post, set beside a three inch spruce post marked on the south side "VI. M.," on the southeast side "Catharine," on the southwest "Pacaud," on the northwest "Boston," and a six inch cedar post marked on the south side "Con. VI.," on the west side "Lot I.," planted on the northwest corner of the township of Catharine, which is also the north-east corner of the township of Pacaud and running due north to the 3rd base line, intersecting the 2nd base line at 5 M. + 78.54 chains and the south shore of Victoria Lake at 5 M. + 14.57 chains from the 2nd base line.

After completing the 2nd meridian I returned to the 2nd base line which I continued east to the line between the townships of McElroy and Hearst which intersected the last mentioned line at 2.83 chains south of the

northwest corner of Hearst. From the last mentioned point, I commenced my 3rd meridian, running it due north thirty miles, intersecting the 3rd base line at 6 M. + 6.07 chains from the northeast corner of the township of McElroy, and the 4th base line at 18 M. + 8.54 chains north of the 3rd base line. I then returned to the 3rd base line which I continued east to the interprovincial boundary which I intersected at 12.875 chains north of the 43rd mile post on said boundary. From the 6th mile post on the last mentioned line I ran the 4th meridian due south to the 1st base line, crossing Larder Lake as shown in the field notes. I commenced the 1st base line at a one and seven-eighth inch iron post set beside a six inch jack pine post in a cairn of stones, both marked "Catharine" on southwest, "McElroy" on northwest, "Hearst" on northeast, and "Skead" on southeast. From these posts I ran due east crossing Ontario Land Surveyor Byrne's line between the townships of Skead and Rattray at 6 M. + 1.75 chains, and my 4th meridian at 6 M. + 2.67 chains, and intersecting the interprovincial boundary at 13.90 chains north of the 31st mile post. Again I commenced the 2nd base line at a five inch jack pine post marked "V.M.—XXXIXC." "LXXX." on west side and ran due east to the interprovincial boundary, which I intersected at 18.08 chains north of the 37th mile post.

Iron posts were planted and marked as follows:—

1. At north-west corner of Lebel marked on south side "VI.M." south-east side "Lebel."
2. At lake, 6 miles north of Lebel, marked on south side "V.M. + 79.00c."
3. At south boundary of Barnet marked on south side "XII.M. + 5.57c."
4. At intersection of 2nd meridian and 2nd base line marked on south side "VI.M.—I.46c," northwest side "Lebel," southwest side "Boston," southeast side "McElroy."
5. At south side of Victoria Lake marked on southeast side "Gauthier," south side "V.M.+14.30c," southwest side "Lebel."
6. Where the 2nd base line intersects the line between the townships of Hearst and McElroy marked on the northwest side "Gauthier," on the southwest side "McElroy," on the west side "V.M.+LXXVI., VII."
7. Where the 3rd meridian crosses the 3rd base line marked on the southwest side "Gauthier," on the southeast side "McVittie," on the west side, "VI.M.+1c."
8. On 3rd meridian, 6 miles north of 3rd base line, marked south side "VI.M."
9. On 3rd meridian, 12 miles north of 3rd base line, marked on the south side "XII.M."
10. At intersection of 3rd meridian with 4th base line marked on south side "XVIII.M.—8.54c," on west side "XI+61.16c."
11. On the north-end of the 3rd meridian, marked on south side "XXIV. M.+8.54c."
12. Where the 4th meridian intersects the 1st base line marked on north-east "McFadden," on north-west "Hearst," on west, "VI M.+2.67c."
13. On north shore island C C marked on south "IV.M+9c," marked on south-west "Hearst," on south-east "McFadden."
14. Where 4th meridian intersects north shore of Larder Lake marked 36c, 60 l, on south side, marked "McGarry" N.E. corner, marked "McVittie" N.W. corner.
15. Where the 4th meridian line intersects the 3rd base line marked "VI.M." on W. side, marked "McVittie" on S.W. side, marked "McGarry" on S.E. side marked "VI.M." on S. side.

16. Where the 1st base line intersects the boundary line between Ontario and Quebec, marked "Rattray" on S.W. side, marked "McFadden" on N.W. side, marked "V.M.+20 chs. 10 Links" on W. side.

17. Where the 2nd base line intersects the line between Ontario and Quebec, marked "McFadden" on S.W., marked "McGarry" on N.W., marked "V.M.+17c 8 links" on W. side.

18. Where the 3rd base line intersects the west shore of Victoria Lake, marked "V.M.+35.40c" on W. side, marked "Lebel" on S.W. side.

19. Where the 3rd base line intersects the boundary between Ontario and Quebec, marked on S.W. "McGarry," marked on W "V.M.+14c."

20. On 4th base line six miles east of Barnet, marked on west side "VI. M."

21. On 4th base line six miles east of 3rd meridian, marked on west side VI. M."

22. Where the 4th base line intersects the line between Ontario and Quebec, marked on west side "XI., M.+4.40c."

All these posts were three feet long, one and one-quarter inches in diameter, forged at the top, pointed at the bottom and painted red.

Wooden posts were planted at every mile and marked with the number of miles, each is from the initial point, on the south side of the post, on all meridian lines, and on the west side of the post on all base lines. At all township corners the names of the townships were marked on the side of the post which faces the respective townships.

The magnetic variation is fairly uniform at about 9 degrees 30 minutes to 10 degrees w.

All lines were well cut out and blazed.

The distances of all lines from the various closing points are noted in the field notes.

Owing to the extremely wet and cloudy weather, I was unable to observe for Azimuth as often as I wished.

With the exception of Larder Lake, Beaver House Lake and Victoria Lake, all the lakes crossed by the lines were small and of little importance. The White River, Izzabamageezy River and Black River were the only large streams crossed.

The country on the whole is quite rocky, rough and hilly, particularly south of the height of land around Larder Lake and along the White River and Beaver House Lake. The land in the vicinity of the fourth base line is much leveller, better timbered and more valuable from an agricultural standpoint.

Nearly the whole country south of the height of land has been prospected over, a great deal has been staked out as mining claims, and a small portion of the claims have been surveyed. All surveyed lines and claim lines that were noticed were tied on to my lines wherever crossed, and the distances to some post measured, as shewn in the field notes accompanying this report.

There appears to be more or less mineral in nearly all the outcropping rock, but I did not notice any mineral veins which were not already staked out and located.

The timber consists chiefly of poplar, spruce, white birch and balsam from 6 inches to 20 inches in diameter, with banksian pine and a few white pine on the higher sandy or gravelly soil. The tamarac is all dead.

Fire has been through the country around the 1st meridian about thirty years ago, I was informed by the Indians, and hence the timber along the western part of the district covered by this survey is mostly second growth and of little value.

Of large game, moose and bear are quite plentiful, and several were seen by members of the party; partridge, duck, beaver, rabbits and muskrats are numerous, trout and pike were caught in the lakes and streams. Blue berries were exceptionally plentiful on the higher lands, and raspberries and cranberries, red currants and sugar plums are well distributed over the whole area.

All of which is respectfully submitted,

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) J. J. NEWMAN,

Ontario Land Surveyor.

The Honorable.

The Minister of Lands, Forests and Mines,
Toronto, Ont.

(Appendix No. 24.)

GRAND TRUNK PACIFIC BLOCKS 8, 9 AND 10, DISTRICT OF RAINY RIVER.

BRUCE MINES, ONTARIO, December 14th, 1907.

SIR.—I beg to state that in accordance with your instructions dated May 30th, 1907, I have completed the survey of the outlines of Blocks 8, 9 and 10 in the District of Rainy River, these blocks forming part of the Grand Trunk Pacific Railway Company's land grant under Chapter 18, 4 Edward VII., and I have the honor to submit the following report.

I started for Dinorwic on June 19th and proceeded as quickly as possible, by way of Minniatkie Lake, to Block 10, which was surveyed first. As soon as the outlines of this block were completed, I moved my outfit up English River, and through Flying Loon Lake to the southwest corner of Block 9. On the completion of this block, I moved to Lake of Bays, and up a river flowing into the west side of this lake to a spot near the starting point for Block 8. I completed the survey of Block 8 on October 19th and arrived home a week later.

In performing the survey, all the lines were run astronomically north and south and east and west. Frequent observations were taken to confirm or correct the bearing of the lines. The details of these observations are noted in the field notes. All the lines were carefully cut out and blazed.

Iron posts were planted at the corners of the blocks with the exception of the northeast corner of Block 10 and the southeast corner of Block 9. These corners happened to fall in the water, and the iron posts were planted on the lines at the shore. The details of the planting of these posts are given in the field notes. Wooden posts of the best timber available, were planted every mile on all the lines run.

The posts on the east and west boundaries of the blocks are all marked on the south side with the number of miles the post is distant from the southeast or southwest corner, as the case may be.

On the north and south boundaries, the posts are marked on the east side with the number of miles the post is distant from the northeast or southeast corner of the block. In cases where the end of a mile came in a lake, a post was planted on the nearest shore and the chainage to the last mile post was marked on it with a scribing iron. In most cases, two bearing

trees were marked at each post, and the distance and bearing of each tree from the post recorded in the field notes. Wherever possible a mound of stones was piled around the post. These are also recorded in the notes. Throughout the survey, nothing but cedar and tamarac was used in making the posts.

BLOCK 8.

The survey of Block 8 was commenced at the 17th mile post marked "XVII. M." on the base line run by Ontario Land Surveyor Alexander Niven in 1897. This base line commences at the 120th mile post on the boundary between the districts of Thunder Bay and Rainy River and runs due west astronomically from that point.

From the 17th mile post on this base line, I ran a line north astronomically a distance of two miles. I then returned to my starting point and ran south astronomically a distance of sixteen miles, thence east astronomically a distance of six miles, thence north astronomically a distance of eighteen miles, thence west astronomically a distance of five miles seventy-nine chains, thirty-five links, intersecting the line first run at a point two miles three links north of the starting point.

An iron post, one and seven-eighths inches in diameter, was planted alongside of a wooden post at each of the four corners of the block. Each post was marked "G.T.R. Block eight" on the side facing the block.

Block 8 contains a number of lakes, of which Lake of Bays in the northern part of the block is the largest. This lake is about fifteen miles long, and lies almost wholly within the block with the exception of a long bay, which extends for about five miles southwest of where it is crossed by the west boundary of the block. The shores of this lake are mostly rocky, the prevailing formation being Laurentian. The outlet of Lake of Bays is a rough rapid stream, running in a northerly direction towards Sturgeon River. It leaves the lake about a half a mile north of the northeast corner of Block 8. In the southern portion of the block occur Pine Lake, White-rock Lake and Young Lake. These lakes are each from two to three miles across, and are tributary to English River. The shores of these lakes are mostly low lying, the rocks being drift covered to a large extent. Where exposed, however, they appear to be of Huronian formation, hornblende and other green schists predominating. The east boundary is crossed in the ninth mile by Penassie Lake, a large narrow lake which extends about four miles east of the east boundary of Block 8. The formation surrounding this lake is granite. One large outcrop of trap occurs at a high point a few chains west of the line on the south side of the lake.

The contact between the Huronian and Laurentian formations occurs on a high ridge between two smaller lakes at five miles, thirty-two chains from the southeast corner. A great deal of Block 8 is covered with glacial drift, composed of sand and gravel mixed with large boulders. The rock exposures are frequent, and the ridges are mostly less than sixty feet in height. East of Lake of Bays, however, are a number of high hills running from two hundred feet to two hundred and fifty feet in height. Considerable areas of muskeg are met with, the largest being in the southwestern portion of the block.

Of agricultural land, there is little worth mentioning.

Block 8 is well timbered throughout, having been damaged but little by fire. The best timber now standing is north of Lake of Bays, where there is a heavy growth of jack pine suitable for tie timber. Most of the north

boundary runs through timber of this class, with some very good tamarac in the low places. This class of timber appears to extend for a considerable distance north of Block 8. On the west boundary the timber is a rather poor average, being composed of jack pine, spruce, white birch and poplar on the higher lands, with spruce, tamarac and balsam in the muskegs. The average size of all this timber is small, but there is a considerable quantity of large timber throughout. Southwest of Pine Lake a fine block of red pine has recently been cut. The stumps show that nearly all of this timber was inside of Block 8. The timber along the rest of the south boundary is similar to that already described, except that south of Young Lake, there are some scattered white pine trees, all of which appear to be inside of Block 8. A large number of these trees, however, are unsound. North of Young Lake there is an area of brûlé, about twenty-five years old, which extends back for about half a mile from the lake, and appears to run northeast towards Sturgeon Lake. A large portion of the block east of Lake of Bays has been burnt over. One fire ran through about ten or twelve years ago, and a smaller one occurred about two years ago. Outside of these areas of brûlé, the timber along the east limit of the block appears to be about the same as on the west boundary, and I am convinced that the same description applies to practically the whole of the block. There are no water powers of any magnitude, as there are no large rivers inside Block 8. On the streams connecting Penassie Lake with Lake of Bays there is a rough rapid having a fall of about twenty feet in less than a quarter of a mile. On Grassy River, there is a fall of about fifteen feet in about six chains a short distance below Pine Lake. In neither instance, however, is the volume of water large enough to maintain a power of any great magnitude. No economic minerals were met with, although, as before stated, considerable areas of promising rocks occur, especially the Huronian series, in the southern part of the block.

The Thunder Bay Branch of the Grand Trunk Pacific Railway crosses the block near the southwest corner. The line crosses the Grassy River at the rapids referred to above.

BLOCK 9.

The survey of Block 9 was commenced at the eighteenth mile post (marked XVIII. M.) on the first meridian run by Ontario Land Surveyor Alexander Niven in 1897, west of the boundary between the districts of Thunder Bay and Rainy River, this point being the southwest corner of Block 9. From this point a line was run due east astronomically a distance of six miles, thence north astronomically a distance of eighteen miles, nineteen chains, ten links, to Ontario Land Surveyor Niven's base line run in 1897. The base line was intersected at a point eleven chains thirty links east of the twenty-third mile post (marked XXIII. M.). The north and west boundaries of Block 9 were run as base and meridian lines by Ontario Land Surveyor Niven in 1897. An iron post one and three-quarter inches in diameter was planted by Ontario Land Surveyor Niven at the eighteenth mile on the meridian above referred to. This post was marked "XVIII. M." on the south side by Mr. Niven. I marked this post "G.T.R., Block Nine" on the northeast side. The end of the sixth mile on the south boundary being the southeast corner of Block 9 came in the water of Otter Lake. The point where the east boundary of Block 9 intersected the shore of Otter Lake was located by means of a triangulation, the details of which are shown in the field notes. At a point above high water near the eastern extremity of

the south boundary of Block 9, a cedar post was planted alongside an iron post, one and seven-eighth inches diameter. The cedar post was marked "I.M.—6.92 chains" on the east side, and the iron post was marked "G.T.R., Block nine" on the north side. Similarly, a cedar post was planted beside an iron post, one and seven-eighth inches in diameter, at a point on the east boundary of the block a little above high water mark. The cedar post is marked "I.M.—40.68 chains" on the south side, and the iron post is marked "G.T.R., Block nine" on the west side. At the northeast corner of Block 9 an iron post one and seven-eighth inches in diameter is planted beside a large tamarac post. The iron post is marked "G.T.R., Block nine" on the southwest side.

A number of small lakes occur in Block 9 and the English River flows in a northwesterly direction across the southern portion of the block. The English River consists mostly of a series of lake expansions, of which Otter Lake and Jarvis Lake are the largest. Between Otter and Jarvis Lakes, there is a fall of about seven feet. A dam has been built at this point, and the water backed up into Otter Lake about three or four feet above the normal level. The raising of the water in Otter Lake and tributary lakes and streams has greatly facilitated the moving of supplies from the main line of the Canadian Pacific Railway to the Grand Trunk Pacific Railway now under construction. Since the building of this dam, it is possible to run a gasoline launch, towing a fair sized scow, right up to the falls on Grassy River, whereas, previously it was with difficulty that a canoe could be taken up during a dry season. A very good water power could be developed at this point. Below Jarvis Lake on English River, there are four other falls and rapids where water powers of considerable importance could be developed within Block 9. As there is a large amount of pulpwood tributary to these waters, these water powers may be of great importance in the future.

The greater portion of Block 9 is covered with glacial drift, consisting of sand and gravel with large boulders. There are also considerable areas of muskeg scattered throughout.

The rock ridges are not usually more than forty or fifty feet high. The highest hills being sand and gravel ridges south of Jarvis Lake. The exact location of the geological contacts are hard to determine, owing to the amount of glacial drift, but an area of Laurentian rocks consisting of granite and gneiss crosses the southern three miles of this block and extends south beyond the main line of the Canadian Pacific Railway. North of this, Block 9 is crossed by a belt of hornblende and other green schists of the Huronian age, striking generally east and west. The Laurentian rocks occur again towards the northern portion of the block along the east boundary, but it is impossible to say from the information at hand where the contact occurs. No traces of economic minerals were met with in running any of the lines.

Of agricultural land, there is practically none.

The south boundary crosses a belt of very good red pine between the third and fourth mile posts. The greater portion of this pine appears to be south of Block 9, but a considerable quantity occurs inside the block. The timber along the rest of the south boundary is balsam, spruce and tamarac on the low ground, and jack pine, spruce, poplar and white birch on the higher areas. The timber is small for the most part, but larger trees occur scattered throughout and occasionally occur in belts of fairly large size. Along the east boundary there is very little good timber. Between Jarvis and Otter Lakes, there is a large area of old brûlé, with very little timber of any value. West of English River, however, the fire has appar-

ently not reached and the timber is of better quality. North of Jarvis Lake for about six miles, the line runs through a fairly good growth of timber similar to that already described along the south boundary. No pine, however, was noticed except jack pine. One or two burnt areas occur, the fires having apparently started at the right of way of the Grand Trunk Pacific Railway. The northern six miles of the east boundary were practically all burnt over during the past season and whatever valuable timber there was has been destroyed. A few green belts remain, but they consist of low swampy areas, which have been run around by the fire. This burnt area extends east of Block 9 as far as could be seen from the line, but no sign of fire was noticed on the west boundary of Block 8, which is about six miles east of the line above referred to. This fire also appears to have originated at the right of way of the Grand Trunk Pacific Railway and has burnt over a very large extent of country.

The Grand Trunk Pacific Railway crosses the block about the middle of the block. The general direction of the railway being northwest and southeast.

Block 10.

The survey of Block 10, was commenced at the thirty-fifth mile post on the base line run by Ontario Land Surveyor Alexander Niven in 1897. From this point, a line was run due north astronomically a distance of eight miles, the north-east corner of Block 10, being at the end of the eighth mile. This corner came in Deception Lake. The point where the north limit of Block 10 intersected the shore of Deception Lake was determined by a triangulation, the details of which are shown in the field notes. From the north-east corner, the north boundary of Block 10 was run due west astronomically, a distance of seventeen miles, fifty three chains, sixty five links, to where it intersected the east boundary of Indian Reserve number twenty-eight. The Indian Reserve boundary was opened out and re-blazed as far as the shore of Lost Lake, where the original corner post of the Reserve was discovered. This line was then produced across a bay of Lost Lake and across the point of the Indian Reserve which extends a considerable distance east of this line. This line was not re-blazed in crossing the point of the reserve. I obtained an observation on Polaris on this point, and found the bearing of the line to be south 1 degree .07 minutes west astronomically. I corrected this at the south side of the point on the Reserve by off-setting a distance of 2 chains, 56.6 links to the east, which gave me a point due south astronomically from the original corner post of Indian Reserve number twenty-eight above referred to. The details of the observations and calculation involved in making this correction are shown in their proper place in the field notes.

I then ran due south astronomically, until I had reached a point six miles, six chains, fifty-four links south of the northwest corner of Block 10. The south boundary of the Block was then run due east astronomically to where it intersected the line first run at a point, one mile seventy-two chains ninety-one links north from the thirty-fifth mile post on Ontario Land Surveyor Niven's Base Line, the said point being the south-east corner of Block 10. The east boundary of Block 10, is therefore, six miles, 7.09 chains in length, and the west boundary is six miles, 6.54 chains in length.

An iron post, one and seven-eighth inches in diameter was planted at the southeast corner of Block 10, and marked "G.T.R. Block 10" on the northwest face. The northeast corner of Block 10 came in Deception Lake, as before stated, but an iron post one and seven-eighth inches in diameter

was planted alongside a wooden post at a point in the east boundary of Block 10, a little above high water mark of Deception Lake. This iron post was marked "G.T.R. Block 10" on the west side. At the northwest and southwest corners of the Block similar iron posts were planted and are marked "G.T.R. Block 10" on the side facing the Block.

Block 10 is well watered by a number of large lakes and rivers. Sturgeon River crosses the east boundary about a mile and a half north of the south-east corner and flows in a southwesterly direction to Abram's Lake. Sturgeon River is a large stream of fairly clear water, flowing with a sluggish current, and is navigable for small steamers throughout the limits of the survey and for a considerable distance east.

English River flows through the block in a general north and south direction. It is a large stream of fairly clear water, and is extremely irregular in outline. Vermilion River is entirely within the block, from where it leaves Big Vermilion Lake in the south-western portion of the block to where it empties into Pelican Lake. It is a beautiful stream of clear water about a chain in width, and flows with a moderate current. The largest lakes are Lost Lake, Pelican Lake, and Abram's Lake. These are really expansions of the English River, and are extremely irregular in shape, and are large in extent. Abram's Lake is nearly all outside the block, a portion of the northeast bay being the only part which crosses the south boundary. In addition to these, are a number of smaller lakes, all tributary to English River or its lake expansions. There are two water powers of importance, Pelican Falls at the outlet of Pelican Lake is the larger, and a splendid power can be developed here. The total fall is about fifteen feet and consists of two cascades a short distance apart, of which the lower one is the higher. The distance across the portage around the two cascades is about a quarter of a mile. A very large volume of water passes here and as the present intention appears to be to locate the junction of the Thunder Bay Branch of the Grand Trunk Pacific Railway with the main line of the National Transcontinental Railway very near here, the water power which can be developed will be of very good value in the future, as there is an immense amount of pulpwood which can be easily driven to this spot. There is also a smaller power on Vermilion River about a half a mile below the point where the river leaves Big Vermilion Lake. This fall consists of an almost perpendicular drop of about twelve feet. The volume of water is not nearly so large as in the case of Pelican Falls, but a power can be developed which will undoubtedly be of some importance in the future.

The general characteristics of block 10 as regards land and timber, are very similar to blocks 8 and 9. There is no agricultural land worth mentioning. The country is largely drift covered sand and gravel with stony land being very much in evidence.

There are also considerable areas of muskeg. The rock exposures are frequent, the ridges being usually not more than sixty feet in height. The prevailing formation is granite and gneiss, although there is a considerable area of Huronian rocks consisting of traps and schists along the Vermilion and Sturgeon Rivers and extending south for some distance. A number of mining locations have been surveyed in this belt, principally along the Vermilion River. No economic minerals were met with, however, in running any of the lines. There is considerable local magnetic variation along the west boundary of block 10 south of Lost Lake and also on the east boundary between Sturgeon River and Botsford Lake. Elsewhere the magnetic variation remains fairly constant at about 5 degrees 30 minutes east.

The timber is similar as a whole to blocks 8 and 9, being composed of spruce, balsam and tamarac in the lower lands, and jack pine, spruce, poplar, and white birch in the higher lands. Along the north boundary there is a large quantity of very good spruce, tamarac and jack pine, and a large amount of very good tie timber can be obtained in the portion of block 10 lying northeast of Pelican Lake and adjacent to the north boundary. This belt of timber appears to extend for a considerable distance north of this block. There is also some very good timber of the same class south of Pelican and Lost Lakes. Some small areas of red pine exist along the shores of Pelican and Lost Lakes, and also on English River, but none of any extent were encountered on the lines. Along the Sturgeon River, there is a large area of brûlé with no timber of value. This area extends for a considerable distance back from the river. South of Sturgeon River a fire of considerable extent raged during the early part of the past season and in fact was still burning in places when the survey was commenced. The timber destroyed, however, in this locality was of small value as most of this section had been burned over some years ago. A small area of brûlé exists also along the north shore of Big Vermilion Lake.

The Thunder Bay Branch of the Grand Trunk Pacific Railway, and the main line of the National Transcontinental Railway both cross block 10, and it is expected that the junction of these two will be in the neighborhood of Pelican Falls.

Throughout the season the magnetic variation remained fairly constant at from 5 degrees to 5 degrees, 30 minutes east, with the exception of a few places on Block 10 where the local attraction was very noticeable. Whenever any such local attraction was met with, it was noted in the proper place in the field notes.

All the lakes encountered during the season abound in fish. Splendid trout and whitefish are to be obtained in large quantities in all the large lakes, and pike and pickerel may be caught anywhere. Moose appear to be very plentiful and the Indians report fur bearing animals still numerous although not so plentiful as in former years.

Accompanying this report, are a mounted plan, and tracing of each block, a certified copy of the field notes, and accounts in triplicate.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) JAMES S. DOBIE,

Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines.
Toronto.

(Appendix No. 25.)

GRAND TRUNK PACIFIC BLOCKS, Nos. 1, 2, 3, 4, DISTRICT OF THUNDER BAY.

NIAGARA FALLS, ONT., December 27th, 1907.

SIR,—I have the honor in accordance with my instructions dated the 25th day of May, 1907, to survey the outlines of four blocks of land along the Thunder Bay Branch of the Grand Trunk Pacific Railway to submit the following report.

The final instructions for my guidance reached me on the third day of June and I started the same evening for Fort William, where I arrived two days later and spent the next few days in securing and forwarding supplies and necessary camp equipment and selecting men to take charge of the transport. On Saturday the 8th, I proceeded with a full party to Osko, a station on the Canadian Pacific Railway in Block No. 1, about a mile and a half from the north boundary of the block. Here I found a small storehouse where I left part of my supplies and started in search of a post planted by Mr. E. Stewart, Ontario Land Surveyor, in 1895, to mark the township outline which was taken as the north outline of this block.

Having taken observations for Latitude and Azimuth, I proceeded to reopen the line run west by Mr. Stewart twelve years ago, a mile and a half to the west boundary of the township and re-establish the post planted by him and there planted the iron post marking the northwest corner of Block No. 1, and the southeast corner of Block No. 2. Returning to the railway I produced the line east ten and a half miles to the proposed easterly limit of the block; then returning to the northwest corner I ran the west boundary south six miles and then proceeded to the intersection of the south boundary with the Canadian Pacific Railway, finding Mr. Stewart's post about a quarter of a mile southeast of Buda Tunnel, marking the outline taken as the south boundary of the block.

From the Canadian Pacific Railway I first re-opened Ontario Land Surveyor Stewart's line two and a half miles to his iron post at the southeast corner of the township renewing the posts and marking them as per instructions. I then ran west to the southwest corner of the block and returning east six miles to Stewart's iron bar, I produced the line east six miles further to the proposed southeast corner of the block, where I turned and ran north eight-five chains, coming suddenly on the Dog River, which I was instructed not to cross but to fall back on my south boundary far enough so that in running north the boundary would not come in contact with the Dog River or Lake. I set the iron post marking the southeast corner of Block No. 1, forty chains farther west and ran the east boundary of the block north to its intersection with the north boundary and marked the northeast corner with an iron bar as per instructions.

The surface of the ground may be classed as undulating to hilly, becoming rougher towards the east end of the block. The soil throughout is sandy loam, sand or gravel. Some spots are covered with large erratic boulders of glacial deposit. The rock, where outcrops occur, is granite of the Laurentian formation. The block as we recede from the railway becomes heavily timbered, the timber increasing in size and value towards the east end of the block where there are scattered pines from twenty to twenty-eight inches in diameter, also some large poplar, birch, spruce and tamarac. In the vicinity of the railway, the timber has been to a great extent fire killed, some parts of recent date and others where ten or twelve years have expired since injurious fires passed over.

There are no lakes within sight of the outlines in the block that are worthy of mention, and the only stream of any size is the Osko River, which enters the block from the west crossing the west boundary in the fifth mile and leaving the block near the west end of the eleventh mile on the south boundary.

Work in this block was finished the 10th of July and a move made by train from Buda to Dexter on the day following, the weather from beginning of June having been all that one could desire. On the 13th of July the weather took on a great change, heavy showers accompanying electric

storms became of daily occurrence and from that time until the middle of October there were few days on which it did not rain sometime during the twenty-four hours. At intervals heavy rain fell for two or three days in succession and watercourses, creeks, rivulets and muskegs were filled to overflowing. These conditions caused considerable delay in the prosecution of the work.

In surveying Block No. 2, I began at the southeast corner and ran the east boundary astronomically north six miles to a post and iron bar planted by Ontario Land Surveyor Stewart, in 1895, to mark the northeast corner of a township which was adopted as the northeast corner of this block. Here I planted the iron post marked as per instructions and turning west reopened Mr. Stewart's line to the Canadian Pacific Railway renewing the posts and marking the mileage thereon. Where the line crossed the Canadian Pacific Railway much work had been done during recent years on both sides of the track and no trace of the posts planted by Mr. Stewart remained. New ditches had been excavated and undoubtedly the land marks had been destroyed at that time.

The line was continued west to the eighteenth mile point crossing muskegs, streams, lakes and hills to where the iron bar marking the northwest corner of the block was established and turning here we ran the west boundary south six miles and planted another iron bar. When at this end of the block I sent to Savanne on the Canadian Pacific Railway and Kashaboiwe on the Canadian Northern Railway for supplies, there being a canoe route from both these places to Trout Lake, near the southwest corner of this block and completed the survey by running eighteen miles east to the place of beginning.

The surface along the east boundary and the first six miles of the north boundary is for the greater portion level while it becomes rougher as we proceed west and the remaining portion of the boundaries range from undulating to hilly.

Five and a half miles from the northeast corner the Savanne River is crossed and another stream flowing north of considerable dimensions that might be utilized for running timber, is crossed on the ninth mile. The timber towards the southwest would be taken out via Trout Lake to Kashaboiwe Lake and the Canadian Northern Railway.

There are several Lakes of considerable size either crossed by or in close proximity to the outlines on the north, west and south boundaries, the largest being Trout Lake, near the southwest corner of the block, which from the apparent accuracy with which it appears on the map would indicate that it must have been traversed some time in the past. The lake both as to position and dimensions, coincides very closely with its projection on the maps of the Department.

The land area is thickly timbered with poplar, birch, spruce, tamarac and pine, varying in size from underbrush to timber with a diameter of thirty inches. There has been excellent pine on the westerly six miles but this has been lumbered over for years to supply the mills at Savanne, and a large proportion of the best pine has been removed. There still remains considerable good timber.

The soil throughout is of a sandy nature, while the growth of timber would indicate a fertile soil where not too wet. Along the west and south boundaries, the country is pretty rocky, the outcrop being granite of the Laurentian formation and the boulders piled up in heaps in several localities would indicate glacial deposits. No minerals of economic value were noticed, but in places the oxide of iron in the water would indicate the presence of that metal in those localities.

At the sixth mile post on the north boundary of Block No. 2, I planted an iron bar to mark the southwest corner of Block No. 3 and ran north six miles from this point and set an iron bar to mark the northwest angle of the block. From thence I ran due east eighteen miles and marked the northeast corner with an iron bar and thence south six miles to the southeast corner which was marked in a similar manner, viz., the initial letters "G.T.P.R." and the number of the block cut on the iron bar with a cold chisel, turned so as to face the block. From thence running west twelve miles we arrive at the northeast corner of Block No. 2, which completes the outlines.

The surface of this block especially along the north boundary is quite hilly and broken by wet spruce and tamarac swamps, some of which contain very fine tie timber. North of the Canadian Pacific Railway on the west boundary and along the north boundary for fourteen miles, the country is heavily timbered with spruce, and tamarac on low ground and poplar, birch, spruce tamarac and pine on the higher ground. In the vicinity of Dog River, which crosses the north boundary at the ninth mile post there is quite an area of sandy land timbered with Jack Pine suitable for tie timber. Between the third and fourth mile posts from the northeast corner we come into brûlé or burnt country, part of which had been fire killed from twelve to fifteen years ago, and recently burnt over. The east boundary for about half the distance runs through burnt country and the first twelve miles of the south boundary passes through a country overrun by fires with the exception of a few green spruce or tamarac swamps. Nearly half the entire block has been burnt over. A line drawn from the eleventh mile on the south boundary to the fourth mile on the north boundary would mark approximately the part fire killed. Green timber occurs only in swampy spots of this burned area while the standing timber on the higher ground is mostly dead and blackened or already fallen and undergoing rapid decay.

There are many rocky ridges bearing north and south or nearly so. Along the south boundary we noticed several places where the Huronian formation alternates with the Laurentian, a vein or fault usually separating the two but no valuable minerals were seen.

The soil is generally a sandy loam and in some localities a pure sand, such as produces the groves of Jack Pines.

Dog River which enters the block at the ninth mile post on the north boundary leaves it near the fourth mile post on the east boundary but follows the line southward to within a mile of the southeast corner of the block. There are several small lakes in the block. The largest noticed is situated near the northwest corner and locally known as Whitefish Lake. There are two Indian families resident here during the winter months having houses near the margin of the lake on the southwest shore. This lake forms a link in the canoe route from Savanne River to Dog River and also to Muskeg Lake. The portage from Savanne River to this lake is a little over a mile in length well opened out and frequently used.

For the purpose of locating the position of Block No. 4, I had the option of running a line north from the Canadian Pacific Railway at a point west of Savanne to the southwest corner of the block or of running north six miles from the northwest corner of Block No. 3 to determine the southeast corner of Block No. 4. The latter course I chose as the most convenient and accessible. Having returned to the northwest corner of Block No. 3, I started on the 19th of September to run the meridian outline north to establish the southeast corner of Block No. 4. At sixty-one chains on the fourth mile we arrived at the south shore of Muskeg Lake which we found to be upwards of two and three-quarter miles where crossed by the line from

south to north, the corner of the block falling in the lake twenty-nine chains from the east shore and forty-eight chains from the north shore. The lake from east to west where crossed by the south boundary is nearly three and a half miles in length.

It will be seen from an examination of the notes that some difficulty was experienced in obtaining suitable data for the several triangulations. From Muskeg Lake, I ran the south boundary west to the grade of the Grand Trunk Pacific Railway and then returning to Muskeg Lake, I ran north to the northeast corner of the block and planted an iron bar, a wooden post having been planted as a witness to the southeast corner, twenty-nine chains east from the corner which falls in the lake. From the northeast corner of the block I ran due west twelve miles and planted an iron bar to mark the northwest corner, thence south six miles to the south boundary and returning east to the Grand Trunk grade, I completed the south outline and planted the iron bar at the intersection of this line with the meridian run from the north.

The surface along the east and north outlines is undulating to hilly, while the west boundary is comparatively level. The block contains very good timber, east of the railway, the best being north of Muskeg Lake. There has been excellent timber in the vicinity of the southwest corner but it has suffered much from the operations of the lumberman who could raft or drive it from here down the north branch of the Savanne River, which is quite a large stream, where it crosses the southwest corner of this block.

The timber consists of poplar, birch, spruce, tamarac and pine. A few good white pine trees were noticed as we ran the fourth and fifth miles on the north boundary. West of the railway on the south boundary there are some large poplar trees and good size birch as well as tamarac and spruce.

There is a heavy windfall on the west boundary of this block south of the railway grade, which in conjunction with muskeg makes that part very difficult of access in summer. A strip of country near the railway right of way has been overrun with fire but at no great distance from the right of way. A belt of low flat country runs from the southeast to the northwest and this is followed by the Grand Trunk Pacific Railway. The road here is almost straight for a distance of twenty miles and the black decayed vegetable muck, full of roots, is about three feet deep overlying sand or clay. Those swamps are often underlaid with clay, beneath the vegetable mould, which forms the surface. On the higher ground the surface soil is sandy loam. There are a few rock outcrops, but considerable areas where no rock is seen.

Muskeg Lake, so called, at the southeast corner of the block is not what its name would indicate a marshy lake, but rocky with in many places fine sandy beaches and islands which would make it a model summer resort. It can be reached by canoe from the railway by following a stream and string of smaller lakes.

We secured some excellent potatoes grown by Indians at the west end of Muskeg Lake.

No minerals of economic value were seen in the block.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) THOMAS FAWCETT,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines.

(Appendix No. 26.)

TOWNSHIP OF BARKER, DISTRICT OF ALGOMA.

GUELPH, Ont., Jany. 15th, 1908.

SIR,—I have the honor to submit the following report on the survey of the township of Barker, in the District of Algoma, made under instructions from your Department dated May 6th, 1907.

I left Missanabie Station on the Canadian Pacific Railway on June 3rd and arrived at the southwest corner of the township on June 14th.

The outlines of the township were run by Ontario Land Surveyor Alexander Niven, the north boundary being his base line of 1900, while the east, west and south boundaries were surveyed by him in 1906.

The township is nine miles square and is subdivided under the new system approved by Order-in-Council dated April 24th, 1906.

A road allowance fifty links wide is left on each side of the outlines and a road allowance one chain in width between alternate concessions, *i.e.*, between two and three, four and five, six and seven, eight and nine, ten and eleven, and also a side road allowance one chain wide between lots six and seven, twelve and thirteen, eighteen and nineteen, twenty-four and twenty-five.

The lines were run in the centres of the road allowances.

Posts were planted on the concession lines between each of the lots, a post being planted on the centre line as a guide to the corner posts and marked with the lot numbers on the east and west sides and "R" on the north and south sides, and a post on the south side of the road allowance marked with the lot numbers on the east and west sides and concession number on the south side and "R" on the north side; and a post on the north side of the road allowance marked with the lot numbers on the east and west sides, the concession number on the north side, and "R" on the south side.

At a side road a post was planted at the intersection of the survey lines and marked "R" on each of its four sides. A post was also planted on each of the four lot corners and marked "R" on the two sides next to the road allowances and with the number of the lot on the east or west side and the number of the concession on the north or south side according to the corner on which it stood.

No posts were planted on the side roads at the blind lines.

There is an iron post one and seven-eighths inches in diameter at each of the township corners, marked "Barker" on the side facing the township.

An iron post, one and one-quarter inches in diameter, is placed beside the wooden post in the centre of the road allowance on the south boundary between lots twelve and thirteen, marked "R" on four sides, "Lot XII." on the east side, "Lot XIII." on the west side, "Con. I." on the north side.

An iron post one and one-quarter inches in diameter is also planted beside the wooden post at the intersection of the line between concessions six and seven with the side line between lots twelve and thirteen, marked "R" on the four sides, "Lot XII." on the east side, "Lot XIII." on the west side, "Con. VI." on the south side, "Con. VII." on the north side.

An iron post one and one-quarter inches in diameter is also planted beside the wooden post on the north boundary at the line between lots twelve and thirteen, marked "R" on the four sides, "Lot XII." on the east side, "Lot XIII." on the west side, "Con. XII." on the south side.

The surface of this township is comparatively level and there are no lakes or large streams.

A little south of the centre of the township there is a large swamp extending from lot six to lot twenty-four, and about two miles in width at the centre. This swamp is thinly timbered with small, scrubby trees, and the ground is wet and mossy.

The remainder of the township consists of low ridges of dry land and intervening stretches of spruce swamp.

The soil is clay, and in the swamps the clay is overlaid with black muck varying from a few inches to a foot or more in depth and with a thick growth of moss. The swamps are not wet.

This land is well drained by a number of small creeks, and when cleared will be good farming land.

No rock exposures were seen in the township.

Taking the township as a whole, probably three-fourths of it is suitable for farming, the remainder being swampy.

The timber is chiefly poplar and spruce with some balm of Gilead, white birch, tamarac and balsam. The poplar is of good quality and in size runs from about twelve inches to twenty-four inches in diameter. The spruce as a rule is not large, very little of it being over twelve inches in diameter, and where the growth is large the trees are often thin on the ground. The township as a whole is not heavily timbered.

The summer of 1907 was warm and showery, with a great deal of cloudy weather, and on that account it was difficult to get astronomical observations.

There was no summer frost.

Game was not plentiful. A few moose were seen, but no other large animals.

Accompanying this report are the field notes of the survey, a map of the township, and a timber plan, all of which I trust will be found satisfactory.

I have the honor to be,
Sir,

Your obedient servant,
(Sgd.) JAMES HUTCHEON,
Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 27.)

... TOWNSHIP OF COLQUHOUN, DISTRICT OF ALGOMA.

ORILLIA, November 20th, 1907.

SIR,—Pursuant to the carrying out of your instructions for the survey of the township of Colquhoun, in the District of Algoma, dated the 20th day of May, 1907, our party left Orillia on the 17th day of June, following, prepared to proceed to the locality of the work. Having been assured upon inquiry from the officials of the Temiskaming and Northern Ontario Railway that the line was in fair working shape as far as McDougall's Chute, we determined to go in by that route, thus cutting down the length of the canoe trip and saving time as compared with the Mattagami route. Owing to the usual delays incident to travelling over a railway in course of construction and in getting supplies and men to that point, it was the 25th of the month before we got our canoes into the Black River at a point about two miles

above McDougall's Chute and began the voyage down stream. We followed the Black River to its confluence with the Abitibi and thence down the latter stream to a point about five miles below the mouth of the Frederick House River, where a small stream known as the Driftwood enters on the west side. As this last mentioned stream flows directly through the township in question, we proceeded up stream in a southerly direction to the place where work was commenced. The canoe route from McDougall's Chute to the mouth of the Driftwood presents few difficulties, the notable exception being the stretch of rapids and falls, covering a distance of about five miles on the Abitibi, known as the Long Sault. The passage of this stretch occupied a day and a half, it being considered better to make double trips over the more dangerous parts than to invite almost certain disaster by allowing any but expert canoe-men to make the passage. Only two portages occur on this rapid, both on the left side, and short, the first being about three chains in length and the second or lower one about ten chains. The Abitibi itself is a magnificent water stretch, in places a quarter of a mile across, sweeping northward in long easy curves with fairly strong current but very muddy water. The water in this and the Mattagami River is said to have reached an unprecedented height last spring owing to the great depth of snow in the winter. The season had been dry up to the middle of June, when the rains set in and through the whole duration of our trip there was scarcely a twenty-four hour interval in which rain did not fall, and it was a rare thing during the progress of the work for us to leave camp and return without a drenching. The weather conditions were in sharp contrast to those prevailing during the previous summer, which was exceptionally dry, and it rendered bush work in a country so thickly forested with evergreens and dense undergrowth unpleasant to a degree. Actual survey work was commenced on the 5th day of July, and we were again at McDougall's Chute on the return journey on the 7th of September following, having experienced no mishaps worthy of mention.

The township of Colquhoun is laid out in double front alternate concession, each concession thus having a road allowance in front and a blind line separating the concessions in the rear. The concessions are numbered from one fronting on the south boundary to twelve fronting on the north boundary, and have a depth approximating to fifty-nine chains and fifty links. The lots are numbered from one at the east boundary to twenty-eight at the west boundary, and have a frontage approximating to twenty-five chains and twenty-five links and an area approaching one hundred and fifty acres. Lots nine and ten are the furthest variants from these conditions. Side roads were laid out between lots six and seven, twelve and thirteen, eighteen and nineteen, and twenty-four and twenty-five, and allowances for road one chain in width were left around all lakes crossed by the lines run, and also along both banks of the Frederick House and Abitibi Rivers.

The survey was commenced from the southerly boundary, being the northerly boundary of the township of Calder, run by us last year; the side lines being run due north astronomically and being continuations of the several side lines in the township of Calder with the exception of that between lots twenty-four and twenty-five, which was commenced at a point thirty-three links west of the corresponding side line in Calder, giving lot twenty-five a width of twenty-five chains and twenty-five links. This northerly boundary of Calder had been run with special care, hubs being driven and pickets firmly planted in such a manner that it could be safely used as a base line to turn the several side lines from, and the value of this became evident as it was not until the beginning of August that we were able to obtain a satisfactory observation to check bearings, and when it was obtained showed

the bearings of the lines to be entirely satisfactory. From these side lines the several concession lines were turned east and west astronomically. Owing to the extremely rough nature of the country about the southeasterly corner of the township, and the water intersections at this point, it was deemed a most unsatisfactory place to commence the east boundary, which was therefore begun from the line between concessions two and three, by giving lots one to six a uniform width of twenty-five chains and twenty-five links. On running south to intersect the south boundary this line was found to be somewhat west of the point aimed at, which we believed to be due to errors in chaining, there being several very deep and steep gullies on the above concession line; as re-chaining for the third time, however, failed to reveal the discrepancy and angular checks proved the correctness of the bearing, we were fain to leave the puzzle unsolved. A difference also appears in the triangulations of the small lakes, entering lot one across the south boundary, from that of last year, the curious fact being that while the total distance across the lot agrees within a few links the individual lake distances do not, the easterly lake being wider than previously shown and the westerly one narrower owing to wrong base measurements being taken last year. As it is somewhat puzzling to understand the exact relationship of the several lines forming the boundaries of the four townships abutting at the southeasterly corner of Colquhoun, a detail has been shown on page 66 of the field notes which clearly shows the relative positions of the three iron posts planted for these townships.

The posts planted in the centre of the road allowance along the north boundary of the township of Calder to mark the division lines between the several lots, with the exception of lots twenty-four and twenty-five previously mentioned, and those on the east boundary, are also the centre posts for the corresponding lots in the township of Colquhoun.

The line run by O.L.S. T. J. Patten in 1904, on a bearing north no degrees ten minutes east astronomically, was used as the line between lots nine and ten across the first four concessions where it terminates at the correction line run by the same surveyor now forming the line between concessions four and five. From the line between concessions four and five to the north boundary of the township the meridian run by O. L. Surveyors Speight and Van Nostrand, in 1905, forms the line between lots nine and ten, thus leaving a jog in this division line on concession line four and five.

The lines were run in the centre of the road allowances, which were laid out of a perpendicular width of one chain. Upon all east and west lines wooden posts were planted to mark the division lines between the several lots. At the intersections of the interior side lines and concession lines five wooden posts were planted, one at the intersection of the lines marked "R" on four sides, and one at each of the abutting lot angles marked with the numbers of their respective lots and concessions and "R" fronting the road allowances. At boundary intersections three posts were planted marked in a similar manner, and at the extreme angles of the township, two posts. At the intervening lot lines between the side lines a post was planted on the centre line of the road allowance marked with the lot numbers on east and west sides and "R" on the north and south sides. Wooden posts were also planted on the centre line to mark the road allowances round lakes and along rivers, marked "R" facing the water. At all posts planted off the centre lines bearing trees were marked, and their bearings and distances from the several posts noted. The intersection of the lines between concessions six and seven, and side line eighteen and nineteen occurs in the Driftwood River, the posts for concession six being planted to the south, and those for

concession seven to the north along this side line. Where lot corners fell in lakes the posts were offset north and south in their proper positions. Beside the wooden posts iron posts one and one-quarter inches in diameter were planted at the following points: on the centre line of the road allowance between lots twelve and thirteen, at its intersection with the centre line of the road allowance along the south boundary, (this post is the same planted for the township of Calder), at the centre line of road between concessions six and seven, and at its intersection with the centre line of the road allowance along the north boundary. Similar posts were also planted on the centre line of the road allowance between concessions six and seven, at its intersections with the centre lines of roads along the east and west boundaries. An iron post, one and seven-eighths inches in diameter, was planted alongside a wooden post at the intersection of the centre line of the road allowance along the east boundary with the centre line of the road along the north boundary marked "R" on four sides, and "Colquhoun" on the southwest side, and a similar post at the intersection of the centre lines of the boundary road allowances at the northwest angle of the township, marked "R" on four sides, and "Colquhoun" on the southeast side. The iron post planted at the centre line of road allowance intersections to mark the northwest angle of the township of Calder, was marked "Colquhoun" on the northeast side. At the intersection of the centre line of the road allowance along the east boundary with the northerly limit of the road allowance round the shore of the small lake at the southeasterly angle of the township, an iron post, one and seven-eighths inches in diameter, was planted alongside a cedar post, and marked "R" on the south, east and west sides, "Colquhoun" on the northwest, and "Leitch" on the northeast.

The area covered by this township consists largely of fine agricultural land, of a sufficiently rolling character to afford effectual drainage.] The easterly portion bounded roughly by the line between lots six and seven, presents a decidedly rolling surface in many places broken by sharp ridges and gullies, and with the exception of the extreme southeasterly part well timbered with large spruce, poplar, white birch, balsam and tamarac; a large number of trees of the first two species exceeding twenty inches in diameter. Over most of this area there is also a thick growth of moosewood or mountain maple and alder, and a great deal of windfall. A number of small lakes of pond-like dimensions also occur within these limits. At the southeast corner and extending as far north as the northerly limit of concession three on the east boundary, thence sweeping in a southwesterly direction to lot five on the line between concessions one and two, and again retreating southeasterly to the neighborhood of the small lakes at the southeast angle of the township is an area of fire-swept country, comprising about thirteen hundred acres. A great deal of the timber is still standing, but dead, and here and there within the area are small patches of green bush, partially fire killed. Along the east boundary across concession one, and the greater part of concession two occurs a succession of ridges so steep that they must measure very closely the angle or repose of the clay composing them, and packed as closely together as the depth of the intervening gullies will permit. These gullies are littered with windfall trees, and choked with dense undergrowth, rendering travelling extremely difficult and laborious. The soil near the steep gullies on lots three and four crossed by the line between concessions one and two is a coarse sand, the only place in the township where this was noted. The soil throughout the rest of this area is clay of good quality.

The northwesterly portion of the township west of the Driftwood River, and mostly north of the line between concessions eight and nine is also sufficiently distinctive to be described by itself. This part consists of level or gently rolling country and fine loamy clay land. It has apparently been burned over at some earlier date and is reforesting with spruce, poplar and tamarac, seldom at the present time exceeding four or five inches in diameter, and at infrequent intervals contains small patches or belts of trees of larger growth. In this area there are also some patches of peat swamp or open spruce flats which will probably require artificial drainage to produce the best results. The land of this tract is excellently adapted for farming purposes, easily cleared, generally well drained and of fine quality.

The balance of the township has a gently undulating surface just sufficient to afford good drainage, and has throughout a good clay soil, generally somewhat loamy, and in places with a light covering of black mould. The whole of this tract is forested with the species previously mentioned but chiefly with spruce and poplar. The trees are of small diameter, it being unusual to meet with one much exceeding twelve inches except on the creek banks and the average diameter is much below this. On the whole the township presents a fine agricultural prospect and at least seventy-five per cent. of its area would be readily available for farming purposes.

With regard to timber value, it would offer more inducement to the manufacturer of pulp than to the sawmilling industry, though in the easterly part some good timber might be procured.

The only rock outcrop met with, with the exception of some small showings of schist at the water level of the Driftwood, occurs on lots fourteen and fifteen where the line between concession two and three crosses apparently near its northerly edge. This outcrop consists of a number of bare hills of red granite apparently of eruptive origin, rising to a height of about one-hundred and fifty feet above the surrounding country; and from the summits of these hills a wide view of the surrounding country may be obtained, especially toward the northeast.

The main drainage channel for the greater part of the township is the creek or little river known as the Driftwood, which flows through a narrow valley depressed from twenty-five to one hundred feet below the level of the surrounding country, entering across the south boundary on lot twenty-four, and flowing northerly across the north boundary on lot thirteen, thus occupying in its general course a central position. This stream has an average width of from two to two and a half chains, and at ordinary water stages a sluggish current. It is capable, however, of accommodating a considerable volume of water, and by removing the rock dams which occur on its course, would furnish an excellent drainage outlet. There are several rapids on its course through the township, and at one place just south of the line between concession eight and nine, the stream drops about twenty feet in a distance of ten chains. There is not enough water passing through to form a power sufficient for commercial purposes beyond what would be required for a small mill working intermittently for local purposes. The Abitibi River crosses the extreme northeasterly corner of the township on lots one and two concession twelve, and the Frederick House River enters in concession eleven and forms its junction with the Abitibi on lot two, concession twelve. No falls or rapids occur on these streams within the boundaries of the township. The lake areas are small and of very minor importance, some being merely basins where water is held by the old beaver dams and could readily be drained. The general water supply is abundant, furnished by small streams, and of excellent quality. On lot five on the line between

concession six and seven there is a steep clay bank rising some thirty feet in height, and at its foot a number of springs break forth. The water in these springs is exceptionally clear and has a slight saline taste as if it had passed through strata containing common salt.

Berries of various kinds were abundant, including high-bush cranberries and elderberries. Wild strawberries were exceptionally large and abundant, ripening in August. A notable characteristic of the forest products of this part of the country is the immense number and great variety of species of the fungi. The wet season was apparently conducive to the growth of these forms of vegetable life, although even in the dry season of last year we observed large numbers of them, and from the middle of August they began to multiply in astonishing numbers and almost endless variety of form. Many edible species were observed, and this locality would abundantly repay the visit and close study of a competent mycologist, and would doubtless furnish new species to be added to the already long list of fungi. Could some one be induced to undertake the work and publish a reliable guide to the edible species, it would prove of great value, and enable the sojourner in the woods to add a very acceptable item to his bill of fare.

Very little game of any description was seen, only one moose and that one within the boundaries of the township. We have before noticed the disappearance of the grouse in the autumn of 1905, whether from being snowed under or other cause is unknown, and they have since been very scarce. This condition does not appear to be local but by the accounts of others to apply to the whole northern district. These birds were plentiful in the neighborhood of the Matagami River in September of 1905, and upon our return there in November had practically disappeared. At the latter date there was about a foot of snow. Beaver appear to have been entirely killed out in this part, and considering the importance of this valuable and interesting animal, both as a fur producer and a conserver of water supply in forest areas, an inquiry should be instituted into the cause of its disappearance, and a remedy, if possible, applied. We have heard fur dealers claim that over protection was the cause, the families becoming too numerous, but from our own observation believe the reverse to be true. Bird life, including many of our common southern species, was well represented.

Referring to the item in our instructions in regard to the right of way of the Transcontinental Railway, we found that the survey parties engaged in this location were still in doubt as to the exact final location and were still working when we left, in the Township of Calder, with the possible chance of cutting the present township close to the southwest corner. We are consequently unable to shew this location on our plans.

We have the honor to be,

Sir,

Your obedient Servants,

(Signed) CAVANA & WATSON.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto, Ont.

(Appendix No. 28.)

TOWNSHIP OF JAMIESON, DISTRICT OF ALGOMA.

SUDBURY, December 18th, 1907.

SIR,—I have the honor to submit the following report of the survey of the Township of Jamieson, in the District of Algoma, performed under instructions dated July 10th, 1907.

I proceeded to the work by way of Metagami Station on the main line of the Canadian Pacific Railway, July 22nd, 1907, thence by the usual canoe route down the Mattagami River, arriving at O.L.S. Niven's second base line on August second. The work of surveying the township of Jessop was commenced on August third, as per instructions but in ten days was compelled to abandon this work owing to disaffections among my men, on account of the wet and low nature of the ground, due to incessant rains and consequent drowned land and proceeded to subdivide Jamieson township, which was much better drained.

This township is bounded on the south by O.L.S. Niven's second base line run in 1905, and by the township of Godfrey, being surveyed this season by O.L.S. Green. On the west by O.L.S. Niven's meridian run in 1905, and by the unsurveyed lands of the Crown. On the north by the Township of MacDiarmid, being surveyed by O.L.S. Fitzgerald this season and on the east by the township of Jessop, being surveyed by the writer this season.

The survey of this township was commenced on August fourteenth by running a meridian line due north from O.L.S. Niven's sixth mile post on his second base line run in 1905, to the south boundary of Kidd and MacDiarmid, our line coming out two links east of the post planted for the southwest corner of Kidd. Posts were planted at every mile on this line for the several concessions, the sixth concession, however, was found to be seventy-nine chains and ninety-one links.

Posts were planted at the end of forty chains in every mile on O.L.S. Niven's second base line, forming the south boundary of the township to mark the width of lots not otherwise marked by mile posts.

Our chainage practically agreeing with that of O.L.S. Niven's on his base line in every mile, his mile posts were adopted as the starting points for our several meridians run due north through this township from the base line. The concession lines were run due west across the township from the posts planted on the east boundary every mile as before mentioned.

Where I started my survey at the southeast angle, I found a one and seven-eighths inch iron post marked "VIM" on the east side, on which I marked "Con. I" on the north side, "XII" on the east side, "I" on the west side, "Jamieson" on the northwest side, and "Jessop" on the northeast side. A wooden post found beside the iron post was similarly marked except for the words "Jessop" and "Jamieson." On the south boundary was found a one and one-quarter inch iron post marked "IX M" on the east side, on which I marked "VI" on the east, "VII" on the west, "Con. I" on the north. A wooden post beside it was similarly marked.

On the south boundary at the intersection of O.L.S. Niven's base line with his meridian run in 1905 was found a one and seven-eighths inch iron post marked "XII M" on the east "VIM" on the south on which I marked "XII" on the east, "Con. I" on the north and "Jamieson" on the north-

east side. A wooden post similarly marked except for the word "Jamieson" was found, both in a stone mound. On the east boundary between concessions three and four, I planted a one and one-quarter inch iron post marked "Con. IV" on the north, "Con. III" on the south, "XII" on the east and "I" on the west. A wooden post planted beside it was similarly marked.

On the front of concession four between lots six and seven, I planted a one and one-quarter inch iron post marked "Con. IV" on the north, "Con. III" on the south, "VI" on the east and "VII" on the west sides, respectively. A wooden post planted beside it was similarly marked. Where concession four intersected O.L.S. Niven's meridian line, (the west boundary), I planted a one and one-quarter inch iron post marked "Con. IV" on the north, "Con. III" on the south and "XII" on the east. A wooden post similarly marked was planted beside it and the distance north to O.L.S. Niven's IX M post was noted.

At the northeast angle of the Township I planted a one and seven-eighths inch iron post marked "Con. VI" on the south, "XII" on the east, "I" on the west, "Jamieson" on the southwest and "Jessop" on the southeast. A wooden post similarly marked was planted beside it.

On the north boundary between lots six and seven was planted a one and one-quarter inch iron post marked "Con. VI" on the south, "VI" on the east, and "VII" on the west sides. A wooden post similarly marked was planted beside it and the distance to O.L.S. Fitzgerald's post noted. At the intersection of the north boundary (run by O.L.S. Fitzgerald this season), with O.L.S. Niven's meridian run in 1905, was found, a one and seven-eighths inch iron post marked "Con. I" on the north, "XII" on the east and "MacDiarmid" on the northeast to which I added "Jamieson" on the southeast, "Con. VI" on the south. A wooden post similarly marked except for the words "Jamieson" was planted beside it. All of the iron posts were of tubing, forged at the top, pointed at the bottom and painted red and all marking done with a cold chisel.

The wooden posts planted between lots two and three, four and five, six and seven, eight and nine, and ten and eleven, on the different concessions were marked according to the different lots and concessions to which they referred, that is, on north, south, east and west. The wooden posts planted on the different concessions between lots one and two, three and four, five and six, seven and eight, nine and ten and eleven and twelve, were marked on three sides only, that is on north, east and west sides, according to the different lots and concessions to which they referred. Bearing trees at a convenient distance were carefully marked and noted for every post planted by me.

The distances along the north boundary from my posts to those placed by O.L.S. Fitzgerald for Macdiarmid and along the west boundary to those placed by O.L.S. Niven were chained and noted in each case.

Observations on Polaris at Elongation for Azimuth were taken when convenient which was seldom on account of continual rain.

The magnetic variation was found to be fairly constant at eight degrees west.

All lines were well opened up and blazed and were run with transit and all are straight lines through the township from boundary to boundary except in one instance where a slight deflection was made after observing Polaris, viz., at front of concession three on line between lots three and four where it crosses Mattagami River. The traverse of Mattagami and Kamiskotia rivers was made with transit and micrometer.

GENERAL FEATURES.

The township is situated on the verge of the clay belt and except for part of the southwest quarter is practically level and for the most part rolling clay land. Numerous creeks found have cut the surface into deep ravines especially is this noticeable on both sides of Mattagami river and for some distance on each side of this river. Stretches of muskeg are scattered throughout the township, the largest area being in the eastern part and are moss covered to some depth.

SOIL.

The soil for the most part was found to be clay loam, in some parts covered to some depth with black muck and moss, but which could be easily drained and burned. I would consider about seventy-five per cent. of the land area to be good agricultural land.

ROCK.

Rock was encountered on lots six to twelve, concession one, six to ten, concession two, and seven to twelve, concession three, and was mostly of slate, some diabase, no indications of economic minerals were found. On lot eight, concessions two and three, there is a very high rocky hill from which the surrounding country could be viewed in every direction and which gradually descends to south and west. Boulders were numerous on lot eight and nine, concession three, and along concession two, lots eight, ten and eleven, also on line between ten and eleven, concession two.

TIMBER.

The township is well timbered throughout, cedar, spruce and balsam being most prominent along the river banks. On the higher ground back from the rivers are large, white spruce, balm of Gilead, poplar, white birch to six or eight inches and balsam.

Timber seemed to increase in size towards the rivers. The rocky hills in the southwestern part of the township were mostly covered with small Banksian pine. About sixty per cent. of the township was thickly grown with tag-alders and other underbrush, making the work slow and laborious. Along the north boundary a brûlé of six or seven years' age was met with on lots four and five and extending west to the river. Also in the northwestern part of the township a brûlé of apparently the same age was found and is shown on accompanying timber plan.

WATER.

As will be seen from accompanying plans the township is well watered by rivers and numerous small creeks. Only three very small lakes or ponds were found, around which were marshy shores or floating muskeg. The Mattagami river enters the township in lot three, concession one, following an irregular course northwesterly and leaving in lot six, concession six, and is an average width of three chains and seventy-five links, being much swollen on account of incessant rains. The north branch of the Kamiskotia river enters the township from the northwest in lot twelve, concession six, flowing southeasterly over numerous rapids filled with rocks and boulders

and other obstructions, making canoeing dangerous, if not impossible, and reaching the Mattagami river in lot five, concession three, where it is about one and a half chains in width. A swollen stream enters the township from the west in lot twelve, concessions two and three, and enters the Kamiskotia river in lot eight, concession three, flowing over many rapids and jams of trees, only the upper part being navigable for canoes. A still smaller stream enters from the south in lot eleven, concession one, flowing northeasterly and reaching the Kamiskotia river in lot eight, concession three. This stream would be only an ordinary creek in dry weather, but was much swollen by continual rains. I noted the Mattagami and Kamiskotia rivers rise over eight feet at their junction after a thirty hours' rain in September.

The waters of the Kamiskotia river and its tributaries being spring fed ordinarily are very cold. I would not consider any of these rapids valuable for water power development on account of their source being spring creeks and rainfall, of which latter there was ample during our residence there.

GAME.

Evidences of moose, caribou and bear were plentiful. Fresh beaver work was frequently met with on the numerous creeks and marshes.

Partridge were plentiful, but we caught no fish.

Accompanying this report are general plan, timber plan, traverse plan, field notes and account.

I have the honor to be
Sir,

Your obedient servant,

(Signed) J. HENRY BURD,
Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto, Ont.

(Appendix No. 29.)

TOWNSHIP OF KENDREY, DISTRICT OF ALGOMA.

PETERBOROUGH, ONT., December 5th, 1907.

SIR,—I have the honor to submit herewith the field notes and plan of survey of the township of Kendrey, in the District of Algoma, performed under instructions from your department, dated the 6th May, 1907.

After taking the necessary observations, I commenced the survey, as instructed, at the northeast angle of the township of Bradburn, from this point, I ran the east boundary north astronomically.

To all the regular lots along the south boundary I gave a uniform width of twenty-five chains and twenty-five links. Lot one is nineteen chains and ninety-three links, and lot twenty-eight is thirty-five chains and seventy-three links.

All the side roads I ran north astronomically from the proper points on the south boundary.

The west boundary I ran north astronomically from the northwest angle of the township of Bradburn.

As will be noticed by the plan I did not run the side line in the centre of the road allowance between lots twenty-four and twenty-five, through concessions eight, nine, ten and eleven. I thought it better to leave lots twenty-four and twenty-five through these four concessions extend to the road allowance along the Mattagami river on either side. That part of the above side road through concession twelve, I ran south astronomically from the proper point on the north boundary.

The concession roads, including the north boundary, I ran east and west astronomically from the proper points on Ontario Land Surveyor Speight's meridian to their intersections with the east and west boundaries of the township.

Wooden posts of the most durable timber at hand were planted along the concession roads between the lots; one on the line itself as a guide post with the numbers of the lots on the east and west sides and "R" on the north and south sides, one fifty links north of the guide post and one fifty links south of the guide post with the numbers of the lots on the east and west sides and the number of the concession or "R" on the north and south sides as the case may be.

At the intersection of the centre line of the different concession road allowances with the centre line of the different side road allowances, durable wooden posts were planted, marked "R" on the north, south, east and west sides.

Good wooden posts were also planted at the angle of each of the four adjoining lots marked with the number of the concession on the north or south sides as the case may be, and the number of the lot on the east or west side as the case might be, with "R" on the two sides facing the concession and side road allowances. These posts were planted at a distance of fifty links from the centre of the concession road allowance and fifty links from the centre of the side road allowances.

A road allowance of one chain in perpendicular width was left along each side of the Mattagami and Muskego rivers, also around all lakes cut by the concession or side lines and around all other lakes of any considerable area. All these road allowances are delimited by wooden posts planted on the lines of survey.

To all posts, with the exception of the guide posts and those defining a road allowance along lakes or rivers, bearing trees, were taken and recorded.

To make the survey as permanent as possible in case of fire, iron posts of the following dimensions were planted at the following points:—On the iron post one and seven-eighths inches in diameter planted at the southeast angle of the township, I marked "Kendrey" on the northwest side, the letter "R" had already been marked on the north, south, east and west sides.

On the iron post one and seven-eighths inches in diameter planted at the southwest angle of the township, I marked "Kendrey" on the northeast side, the letter "R" had already been marked on the north, south, east and west sides.

An iron post one and seven-eighths inches in diameter was planted at the northeast angle of the township marked "Kendrey" on the southwest side and "R" on the north, south, east and west sides.

An iron post one and seven-eighths inches in diameter was planted at the northwest angle of the township marked "Kendrey" on the southeast side, and "R" on the north, south, east and west sides.

An iron post one and one-quarter inches in diameter at the intersection of the north boundary line with the line in the centre of the road allowance between lots twelve and thirteen marked "Con. XII" on the south side, and the letter "R" on the north, south, east and west sides.

An iron post one and one-quarter inches in diameter on the east boundary line at its intersection with the line in the centre of the road allowance between concessions six and seven, marked "Con. VII" on the north side, "Con. VI" on the south side and the letter "R" on the north, south, east and west sides.

An iron post one and one-quarter inches in diameter, on the west boundary line at its intersection with the line in the centre of the road allowance between concessions VI and VII marked "Con. VII" on north side, "Con. VI" on south side and the letter "R" on north, south, east and west sides. An iron post one and one fourth inches in diameter on the south boundary line at its intersection with line in centre of the road allowance between lots twelve and thirteen marked "Con. I" on the north side, and the letter "R" on the north, south, east and west sides.

An iron post one and one-quarter inches in diameter at the intersection of the line in the centre of the road allowance between concessions six and seven with the line in the centre of the road allowance between lots twelve and thirteen marked "Con. VII" on the north side, "Con. VI" on the south side and the letter "R" on the north, south, east and west sides.

The most notable feature in this township is the Mattagami river which enters it from the south, on lot twenty-seven and flowing in a northerly direction, leaves it at lot twenty-four. It is a fine river, being from six to twelve chains in width with good current and a depth of from five to fifteen feet. There are no rapids and only one fall on the river, in its course through the township, this fall which is known as "Smooth Rock" occurs in concession ten, between lots twenty-four and twenty-five. I made a careful survey and estimate of the power available at this point, full particulars of which will be found in the notes.

There are a few small islands in the river in the township, which are of little value either for agriculture or as summer resorts.

The east branch of the Muskego river enters the Mattagami from a northwesterly direction, in concession five. It has an average width of one chain and fifty links with a fairly good flow of water.

There are only a few small lakes in the township, these as a general rule are shallow and have low shores.

The whole township may be described as more or less rolling in character, timbered with spruce (white and black) up to sixteen inches in diameter, poplar, (white and black) up to twenty inches in diameter, white birch, balsam and cedar up to ten inches in diameter with considerable windfall, willow and alder throughout. Numerous swamps of limited extent and covered with small spruce, occur in various parts. There is not more than one hundred and fifty acres of muskeg in the whole township.

The soil is a rich black loam from eight to twelve inches in depth with clay subsoil and entirely free from stone. A few small outcroppings of rock (Huronian) were noticed along the Mattagami river.

No indications of mineral were seen.

The average magnetic variation I found to be fairly constant at nine degrees and thirty minutes west.

Taking the township as a whole, I consider fully sixty-five per cent. suitable for immediate settlement and with a proper system of drainage nearly all the remaining thirty-five per cent. can be made suitable for agriculture.

Several trial lines of the proposed Transcontinental railway cross the township in a northwesterly direction. I was unable, however, to definitely ascertain along which of these the road would be built. I have therefore made no record of them in the notes.

Fish and game were fairly plentiful, while fur seemed to be very scarce.

Strawberries, raspberries, etc., fully matured, were to be had in abundance.

Observations for latitudes and azimuth were taken at several points, records of which will be found in the notes.

Trusting the accompanying plans and field notes of the township will be found satisfactory.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,

Ontario Land Surveyor.

The Honorable,

The Minister Lands, Forests and Mines,
Toronto, Ont.

(Appendix No. 30.)

TOWNSHIP OF MACDIARMID, DISTRICT OF ALGOMA.

PETERBOROUGH, Ontario, December 5th, 1907.

SIR.—I have the honor to report the completion of the survey of the township of Macdiarmid in the District of Algoma, performed under instructions from your department, dated July 11th, 1907.

After taking the necessary observations, I commenced the survey at the southwest angle of the township of Kidd; from this point I ran the south boundary west astronomically to its intersection with O.L.S. Niven's meridian line. Along the south boundary, I gave the lots a uniform frontage of forty chains, lot twelve being thirty-nine chains and ninety-one links.

The side lines I ran north astronomically from the proper points on the south boundary.

The concession lines were run east and west astronomically.

The Mattagami river enters the township from the south at lot six, and flowing in a northerly direction leaves it at lot five. It has an average width of four to five chains, depth of from five to fifteen feet, with good current, and vegetation, as a rule, almost to the water's edge. There are no falls, rapids or islands on the river in this locality.

There are no lakes or ponds in this township..

As to the general character of this township, it may be described as a gently, undulating country, timbered with spruce (white and black), up to sixteen inches in diameter, poplar, white birch and balsam up to ten inches in diameter, with considerable willow and windfall throughout.

Large tracts, especially in the southerly portion of the township, were overrun by fire four years ago, and are now almost destitute of green timber. Swamps covered with small spruce occur at different points.

Generally speaking, the soil is a rich, black loam from eight to twelve inches in depth with clay subsoil.

There are a few rock exposures (Huronian) along the river, also along the west boundary run by O.L.S. Niven; these, however, are generally of a very limited extent and will not materially retard the settlement of this district.

The average magnetic variation I found to be nine degrees west.

No indications of minerals were found.

I would consider about sixty per cent. of this township suitable for immediate settlement while about sixty per cent. of the remainder can under a proper system of drainage be made good paying agricultural land.

Fish, game and fur I found rather scarce in this vicinity, raspberries, strawberries, etc., especially in the brules were very plentiful.

Trusting this report with the plans, field notes, etc., will be found correct and satisfactory to your Department.

I have the honor to be,
Sir,

Your obedient servant,

(Sgd.) J. W. FITZGERALD,
Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto.

(*Appendix No. 31.*)

TOWNSHIP OF LEITCH, DISTRICT OF ALGOMA.

BRACEBRIDGE, Ontario, December 21st, 1907.

SIR,—I have the honor to submit the following report on the survey of the township of Leitch, in the district of Algoma, made in accordance with instructions from your department, dated the 20th day of May, 1907.

With as little delay as possible, I proceeded by way of the Temiskaming and Northern Ontario Railway to the end of the steel of that line, and from there paddled down the Black and Abitibi rivers to the township, which is situated near the junction of the Abitibi and Frederick House rivers.

The north boundary of the township of Clute, surveyed by me last year, forms the south boundary of the township of Leitch, and I began the survey by planting the lot posts along this line, twenty-five chains and twenty-five links apart, leaving road allowance of one chain between lots six and seven, twelve and thirteen, eighteen and nineteen, twenty-four and twenty-five, with half a chain at the east and west boundaries.

The side roads were run from south to north, and the concession roads were run west from the district boundary, making the regular lots twenty-five chains twenty-five links in width, and fifty-nine chains fifty links in depth, with a road allowance of one chain between every second concession two and three, four and five, etc., and a blind line between the other concessions.

The district boundary run in 1898 forms the east boundary of the township, and the west boundary was surveyed during the present season by Messrs. Cavana & Watson.

Along the lines of survey in the centre of the several concession road allowances, posts were planted at the intersection of the lot lines, marked with the numbers of the lots on the east and west sides, and "R" on the north and south side; at the centre of the side road allowances the posts were marked "R" on four sides.

At the distance of fifty links north and south from the centre of the concession road allowances, posts were firmly planted at the front angles of the lots, and marked to indicate the number of the lot and concession, and with the letter "R" facing the road allowance.

Posts were also planted to mark the limit of road allowances around the shores of lakes and rivers; and where the front angle of a lot came in a lake or river, the posts were placed on the lot line at the distance of one chain from high water mark, and guide posts planted and trees marked near the shore so as to be readily found.

No posts were planted along the side roads to mark the blind concession lines.

In addition to the wooden posts referred to, iron posts, one and one-quarter inches in diameter were planted in the centre of the road intersections at the following points: between lots twelve and thirteen on the south boundary, marked "Con. I" on the north side, and "R" on four sides.

Between lots twelve and thirteen on the line between the sixth and seventh concessions, marked "Con. VI." on the south side, "Con. VII." on the north side, and "R" on four sides.

Between lots twelve and thirteen on the north boundary marked "Con. XII." on the south side, and "R" on four sides.

On the line between the sixth and seventh concessions at the east boundary, and also at the west boundary, marked "Co. VI." on the south sides, "Con. VII." on the north sides, and "R" on four sides.

At the northwest angle of the township an iron post one and seven-eighths inches in diameter was planted and marked "Leitch" on the southeast side, and "R" on four sides.

At the southeast angle the iron post one and seven-eighths inches, formerly planted, was marked "Leitch" on the northwest side.

At the northeast angle the iron posts one and one-quarter inches, planted by A. Niven, O.L.S., at the 180th mile, was marked "Leitch" on the southwest side, and "R" on four sides.

At the southwest angle the iron post, one and seven-eighths inches, by O. L. Surveyors Cavana & Watson, was marked "Leitch" on the northeast side.

TIMBER.

Black spruce forest extends over the greater portion of the township, on the higher lands these trees are from eight to twelve inches in diameter but the great bulk of this timber is somewhat smaller.

From one end to the other dead tamarac of about the same size is found.

Poplar, white birch and balsam, six to eighteen inches in diameter, are quite common, and along the rivers and streams, white spruce, balm of Gilead, and cedar of larger size are scattered over the country, but no extensive tracts of large timber were met with.

Fire burnt over some comparatively small areas about 1905 or 1906, the largest of these burnt portions is near the east boundary, evidently starting from the Abitibi river.

SOIL.

Sandy loam was found in a few places, while throughout the greater part of the country the soil is clay or clay loam, overlying which is a layer of vegetable matter several inches in thickness on the higher lands, and from one to three feet thick on the wet land; and evidently this soil is well adapted for agriculture.

ROCK.

At the different rapids in the Frederick House and Abitibi rivers, exposures of Laurentian gneiss and boulders of the same age occur, and also at lot twenty-two in the sixth and seventh concessions where a rapid stream flows over rocky beds of similar formation.

Aside from these exposures at the water levels of the streams, only one outcropping was observed, this is on lot eighteen in the fourth concession, where a ridge of gneissoid rock is exposed for a short distance. No indications of minerals of economic value were noticed.

WATER.

The Abitibi river flows through the northeast corner of the township with a moderate current, leaving the township on lot three, and is again crossed by the north boundary at lot twenty-eight, about five chains down stream from Kettle Falls; from here to the west boundary the current is quite strong and the river wide and shallow.

The Frederick House river, through the first and second concessions, flows with a continuous rapid current over a rocky bed, strewn with boulders and stones, making it a difficult stream to navigate with canoes; below this stretch of rapids this river becomes a large stream of from five to eight chains in width, flowing smoothly between gently sloping clay banks, until it discharges into the Abitibi, a quarter of a mile west of the township; the only break occurs in the seventh concession where a small rocky island causes a short rapid with a fall of one foot.

A stream of one chain in width enters the township from the south on lot twenty-five, and flows with average current through level country until it reaches the fifth concession, while from here until it empties into the Frederick House river this stream is a succession of rapids flowing over a bed of boulders and stones.

At a fall and rapids on lot twenty-two, concession seven, a head of twenty feet could be obtained, but the volume of water in this stream becomes so small at low water that as a water power it would be of little value.

Several small lakes are scattered over the township, they are generally shallow with low marshy shores.

The water in these lakes and in the smaller streams is clear and of good quality.

GENERAL FEATURES.

In the vicinity of the rivers and extending for about one mile on each side, the land is rolling or undulating, and free from stone or boulders, while the surface of the country is from twenty to fifty feet above the surface of the water in the streams; this portion will become desirable agricultural land when cleared.

Nearly one-half of the township is practically level, and during much of this season was quite wet on account of the excessive rainfall, so that artificial drainage will be required for parts of the level areas.

On the whole about sixty per cent. of the total area will be good agricultural land after removal of the timber, and nearly all of the balance can be made good farming land by a system of drainage which will not be very expensive, as no drain would require to be of any great length to reach an outlet in a stream.

The usual game and fur-bearing animals are found here but are not numerous.

During the hunting and trapping season three Indians with their families reside in the township, but they do not appear to have made any permanent improvements.

The variation of the magnetic needle ranged from eight to ten degrees west of north.

Accompanying this report are a plan, timber map, field notes, etc.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) W. GALBRAITH,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto, Ontario.

(Appendix No. 32.)

TOWNSHIP OF McCOWAN, DISTRICT OF ALGOMA.

PEMBROKE, Ontario, December 11th, 1907.

SIR,—I have the honor to report that the township of McCowan in the district of Algoma has been surveyed in accordance with instructions from your department, dated May 6th, 1907.

At present the most feasible route by which to reach this township is from Missinabie Station on the Canadian Pacific Railway via the Missinabie and Opazatika rivers to the crossing of the surveyed line for the National Transcontinental Railway which passes through the township of McCrae about three and one-half miles south of the southeast corner of this township.

The south boundary was surveyed in 1900 by Ontario Land Surveyor Alexander Niven. The east, north and west boundaries were surveyed in 1906 by Ontario Land Surveyor T. B. Speight.

The survey was commenced by chaining and posting the south boundary, and from the posts established on this line for the starting points for the centre lines or road allowances between lots six and seven, twelve and thirteen, eighteen and nineteen, and twenty-four and twenty-five, meridians were run north astronomically, and chords of latitude were run east and west astronomically in the centre of the road allowances between each alternate concession.

One half chain was allowed inside each of the four boundaries as half of the width of the road allowance.

Guide posts were planted on the south and north boundaries marked "R" on the side facing the township, and lot numbers on the east and west sides, excepting at the intersection of centre lines of road allowances where posts were marked "R" on the east and west sides, and on the side facing the township, the lot posts being off-set to their proper position and marked "R" on the side facing the road allowance, the concession number on the opposite side and the lot number on the east and west sides.

At the intersection of the centre line of road allowances between concessions with the east and west boundaries, posts were marked "R" on the north and south sides and on the west or east side facing the township. At the intersection of side road allowances with concession road allowances posts were planted at the lot corners, marked "R" on the sides facing the road allowances, lot numbers on the east or west side and concession numbers on the north or south side as the occasion demanded, while, one marked "R" on four sides was placed at the intersection of the centre lines.

Where lot corners were broken by lakes the position of the posts were located by off-sets, etc., and posts were planted in accordance with instructions at the edge of the road allowance around the lake, guide posts being also planted. In all cases posts were made of the most durable wood available and firmly planted, bearing trees being marked for lot posts only and recorded in the field notes.

I planted iron posts one and seven-eighths inches in diameter alongside the wooden posts at the southeast and southwest angles of the township, marking the former "Neely" on the northeast side, "McCowan" on the northwest side, and "R" on the north, south, east and west sides, while the latter was marked "McCowan" on the northeast side, "Eilber" on the northwest side, and "R" on the north, south, east and west sides.

I planted iron bars one and one-quarter inches in diameter on the centre line of road allowance between lots twelve and thirteen at the following places, "viz.," at its intersection with the south boundary, marked "R" on the north, east and west sides; at its intersection with the centre line of road allowance between concessions six and seven, marked "R" on north, south, east and west sides; and at its intersection with the north boundary marked "R" on the east, south and west sides. I also planted an iron bar one and one-quarter inches in diameter at the intersection of the centre line of the road allowance between concessions six and seven with the west boundary, marked "R" on the south, east, and north sides.

The iron bar at the northeast angle of the township is marked "R" on the east, "Neely" on the southeast, "R" on the south, "McCowan" on the southwest, and "R" on the west side, while the bar at the northwest angle is marked "R" on the east, "McCowan" on the southeast, "R" on the south, "Eiber" on the southwest, and "R" on the west side.

Observations for azimuth were frequently taken to check the bearings of the lines. The magnetic variation was found to be about six degrees and fifteen minutes west.

There are a few small lakes or ponds scattered through the township with one fair sized lake on lots thirteen, fourteen, fifteen and sixteen, concessions eight and nine.

The township is well supplied with water, small creeks being numerous, the majority of which join, and from a stream about half a chain wide, and from two to four feet in depth, which crosses the east boundary near the line between concessions one and two, and which will form a good outlet for drainage.

The surface is level and gently rolling land covered with a dense growth of spruce from four to eight inches in diameter in the swamps, and poplar, spruce, balsam and birch from four to twelve inches in diameter on the higher lands. The timber at present is only suitable for pulpwood.

The soil is a good clay loam, mostly covered with moss which varies from one to two feet in depth in the swamps, and from three inches to one foot in depth on the rolling land. About fifty per cent. of the township will require the construction of drains before it can be cultivated.

No traces of economic minerals were seen, outcrops of rock being rare and of small area.

The National Transcontinental Railway when constructed will make this township easy of access, and with the opening up of the country adjacent to the railway, I have no doubt that this township will become eventually a prosperous farming section, but at present is handicapped by the short season and summer frosts.

Game does not appear to be plentiful though occasionally traces of moose and caribou were seen.

Accompanying this report are a general plan, timber plan and field notes.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) JAMES L. MORRIS,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 33.)

TOWNSHIP OF McCRAE, DISTRICT OF ALGOMA.

EGANVILLE, November 2nd, 1907.

SIR.—I have the honor to report that in accordance with your instructions dated the 6th day of May, 1907, I have completed the survey of the township of McCrae, in the District of Algoma.

With a party which numbered eighteen men all told, I left Missanabi Station on the Canadian Pacific Railway, on June 11th, and, crossing Dog Lake, Crooked Lake and Missanabi Lake, I went down the Missanabi river to the chain of portages leading to Lake Opazatika, and thence down the river of the same name until I reached the south boundary of my township. This is a good route in high water, using large canoes manned by experienced river men.

The east, south and west boundaries were surveyed in the summer of 1906, the north boundary in the summer of 1900, all by A. Niven, O.L.S. Taking Mr. Niven's field notes as a guide, I calculated the position of his five mile post on the south boundary with reference to the side line between lots thirteen and fourteen, and from this I chained east and west, making all of the lots twenty-five chains and twenty-five links wide, excepting lots one and twenty-eight, which I found to be twenty-five chains and nine links and thirty-five chains and thirteen links, respectively. Fifty links were allowed inside each of the four boundaries as half the width of a road allowance,

guide posts being planted on the south boundary, marked "R" on the north side, with lot numbers on east and west sides excepting at the starting points of the centre lines of side road allowances, where posts were marked "R" on east, north and west sides. The lot posts were planted in their proper positions at the corners of the respective lots one-half chain north and marked in accordance with instructions. Meridians were run north astronomically from posts established as starting points of the centre lines of road allowances between lots number six and seven, twelve and thirteen, eighteen and nineteen, and twenty-four and twenty-five, and chords of latitude were run in the centre of the road allowance between the alternate concessions on which guide posts were planted, marked "R" on the north and south sides with lot numbers on east and west sides, from which the lot posts were carefully located by perpendicular offsets, and marked "R" on the side facing the road allowance, the concession number on the opposite side, and the lot numbers on the east and west sides. At the intersection of these chords of latitude with centre line of side road allowance, posts were planted marked "R" on four sides, and posts planted at the corners of the adjoining lots marked "R" on the side facing the road allowances, the lot number on the east or west side and the concession number on the north or south sides as the occasion demanded. The road allowances were all made one chain in perpendicular width. At the intersection of all centre lines of road allowances with boundaries, posts were planted marked "R" on three sides only, the sides facing the adjoining townships being left blank.

Road allowances, one chain in perpendicular width, were left on each side of the Opazatika river and the navigable portion of the large creek which joins it on lot two, concessions five and six. At the intersection of centre lines with road allowances along these streams posts were planted at a perpendicular distance of one chain from high water mark, properly marked, and where the lot corners were broken by water the lot posts were established by means of offsets and guide posts planted at the shore. The posts were made of the most durable wood available and firmly planted where possible, but, owing to a late spring, the frost interfered with this part of the work in a great many places. Bearing trees for the posts at the lot corners were marked and recorded in the field notes.

I found an iron post one and seven-eighths inches in diameter at the southeast angle of the township, marked "Idington" on the northeast side and "McCrae" on the northwest, which I marked "R" on the north, east, south and west sides, and at the southwest angle of the township I found a similar post marked "McCrae" on the northeast side and "Barker" on the northwest side, which I marked "R" on the north, east, south and west sides.

At the intersection of the centre lines at the following places, iron posts one and a quarter inches in diameter were planted along side the wooden posts marked as stated. On the south boundary at centre of road allowance between lots twelve and thirteen marked "XII." "R" on the east, "Con. I." "R" on the north, and "XIII." "R" on the west side. At the intersection of centre line of road allowance between concessions six and seven with the east boundary, marked "Con. VIII." "R" on north side; "I." "R" on west side, and "Con. VI." "R" on south side, and at its intersection with centre line of road allowance between lots twelve and thirteen marked "R" on north, south, east and west sides, and at its intersection with west boundary marked "R" on north, east and south sides.

Iron posts, one and seven-eighths inches in diameter, were planted at the northeast and northwest angles of the township, the former being marked "Idington" on the southeast, "McCrae" on the southwest, and "R" on the

north, east, south and west sides, the latter being marked "McCrae" on the southeast, "Barker" on the southwest, and "R" on the north, east, south and west sides.

Frequent observations for azimuth were taken, the magnetic variation was found to range from six to six and a half degrees west of the astronomic north, six and a quarter degrees being a fair average.

The river Opazatika is a stream from two to three chains wide and from six to ten feet deep in high water. In the spring and during rainy seasons it has a considerable volume of water, but gets very low in dry summer seasons. Only one fall occurs on the river in its course through the township; this varies from ten to fourteen feet in height, but does not appear to me to be of any particular value as a power site, as, owing to the manner in which this stream floods its banks in high water, I consider it will be necessary to enlarge its cross-section at this point to increase the flow of the water in times of freshet to facilitate the drainage of the land above. Only one lake, on lot fifteen, concession seven, was seen, this being small. There are numerous creeks which will afford good drainage outlets when properly attended to. The surface of the township is level or gently rolling, and is covered, generally speaking, with spruce swamps with scattered patches of tamarac, the timber being from four to eight inches in diameter, excepting along the banks of the river and the large creeks, where I found a thrifty growth of white poplar from four to twelve inches in diameter, the large trees being an exception; this extends but a short distance from the banks of the streams. Small areas of dry land were found scattered throughout the township, and on this land the timber varies from six to fourteen inches in diameter.

No traces of economic minerals were seen, only two or three outcrops of rock of small area appearing in the township. A recent fire has run through the southwesterly portion of the township, and where the moss has been burned off a good clay soil is exposed. The remainder of the township is generally covered with moss from a couple of inches to two feet in depth, but the underlying soil appears to be a good clay, and this township will no doubt eventually be a good farming community when properly drained. Summer frosts, however, are quite prevalent at present.

There are indications of this whole township having been burned over at a date which I estimate to be from eighty to one hundred years ago, and the present growth of timber is too small to be of much commercial value.

Several lines have been surveyed for the National Transcontinental Railway through this township, and intersections with the different lines are shown in field notes, but it was impossible to say which, if any of them, is a final location, and none of them are shown on the plan.

Game does not appear to be very plentiful.

Accompanying this report are a general plan, timber plan, traverse sheet and field notes with the usual affidavits.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) HERBERT J. BEATTY,
Ontario Land Surveyor.

The Honorable

The Minister of Lands, Forests and Mines,
Parliament Buildings, Toronto, Ontario.

(Appendix No. 34.)

TOWNSHIP OF REAUME, DISTRICT OF ALGOMA.

LISTOWEL, Ontario, December 21st, 1907.

SIR,—In pursuance with instructions dated May 6th, 1907, from the Honorable the Minister of Lands, Forests and Mines, I beg leave to report the following: I had the same difficulty this year in procuring suitable canoes for my trip. I had canoes ordered from the Peterborough firm and just when the time was up for delivery I received word that they could not be shipped. However, I was fortunate in getting canoes at Orillia and North Bay, after a delay of two weeks. I left Toronto on June 25th, 1907, and reached Englehart, via the Temiskaming and Northern Ontario Railway, on June 27th. This point is one hundred and thirty-eight miles north of North Bay, and was at that time as far north as the regular trains were running. From Englehart we travelled north on the contractor's construction train to McDougall's Chute, a distance of sixty-five miles, the steel on the railway was laid to this point on July 2nd. McDougall's Chute is situated on the Black River. We left McDougall's Chute on July 2nd, with seven canoes, fourteen men, camp outfit and supplies, and got as far as the junction of the Black and Abitibi rivers that night, a distance of fourteen miles. The next day we travelled down the Abitibi to the boundary line between the townships of Pyne and St. John, on line between concessions two and three, a distance of nineteen miles. In this distance there are three small portages, one at Iroquois Falls, about five miles below the junction, and the other two at the Buck Deer rapids, ten miles below the falls. At these rapids we took our canoes down with a light load and portaged the remainder of our outfit. This rapid is not a bad one to run, but one has to be careful. We ran down on the left side for the upper part, and took the right for the lower part. The current in the Black river is very slow, but in the Abitibi it is rapid. The water in both these streams was very high, as the season was a late one. From this point on the Abitibi river I proceeded west along the line between concessions two and three in St. John township to the east boundary of the township of Hanna, a distance of six miles. It rained nearly every day on our way into the work so that we made very slow progress. On August 24th I commenced the survey of the township of Reaume at the southeast angle running north from the base line run by Ontario Land Surveyor Patten and west from the boundary line between the Districts of Algoma and Nipissing. During the survey of this township the weather was decidedly wet, the prevailing winds being southwesterly. I may say that I read the Act for the Preservation of forests against fire, once, but had no occasion to read it again.

The iron posts furnished me by your department I planted and marked as follows:

The iron post, one and one-quarter inches in diameter and three feet long, planted alongside a wooden post on the east boundary of the township between concessions three and four, is marked "Con. III." on the south side, "Con. IV." on the north side, and "I." on the west side. The wooden post is similarly marked.

The iron post, one and one-quarter inches in diameter, planted alongside a wooden post, intended to be planted on the south boundary of the township at the intersection of the side line between lots six and seven, is planted at chainage five and thirty-three one-hundredth chains, on said side line, as the corner comes in a lake. The post is marked "Con. I." on the north side, "VI." on the east side, and "VII." on the west side. The wooden post is similarly marked.

The iron post, one and one-quarter inches in diameter, planted alongside a wooden post, intended to be planted on the north boundary of the township, on the side line between lots six and seven, is planted at chainage sixty-seven and thirty one-hundredth chains on said side line, as the corner comes in a lake. The post is marked "Con. VI." on the south, "VI." on the east, and "VII." on the west. The wooden post is similarly marked.

The iron post, one and one-quarter inches in diameter, planted alongside a wooden post on the west boundary between concessions three and four, is marked "Con. XI." on the south side, "Con. IV." on the north side, and "X." on the east side. The wooden post is similarly marked.

The iron post, one and one-quarter inches in diameter, planted alongside a wooden post at the centre of the township, where the side line between lots six and seven intersects the line between concessions three and four, is marked "Con. III." on the south side, "Con. IV." on the north side, "VI." on the east side, and "VII." on the west side. The wooden post is similarly marked.

The iron post, one and seven-eighths inches in diameter, planted alongside a wooden post at the northeast angle of the township, is marked "Con. VI." on the south, "Con. I." on the north, "Lot I." on the west, "Fournier" on the northwest, and "Reaume" on the southwest. The wooden post is similarly marked.

The iron post, one and seven-eighths inches in diameter, planted alongside a wooden post at the southeast angle of the township, is marked "Con. I." on the north side, "Con. VI." on the south side, "XII." on the east side, "I." on the West Side, "Hanna" on the northeast side, "Reaume" on the northwest side, "Mann" on the southeast, and "Duff" on the southwest side. The wooden post is similarly marked.

The iron post, one and seven-eighths inches in diameter, planted alongside a wooden post at the southwest angle of the township, is marked "Con. I." on the north side, "Lot XII." on the east side, "I." on the west side, "Reaume" on the northeast side, and "Beck" on the northwest side. The wooden post is similarly marked.

The iron post, one and seven-eighths inches in diameter, planted alongside a wooden post, at the northwest angle of the township, is marked "Con. VI." on the south side, "XII." on the east side, "I." on the west side, "Reaume" on the southeast, and "Beck" on the southwest side. The wooden post is similarly marked.

Under the head of "Timber," I beg leave to report the following: The kinds of timber found in this township are in order of their relative abundance: spruce, poplar, tamarac, white birch, balsam, balm of Gilead, cedar and white spruce. The only place where I found white spruce and cedar was along the shores of the lakes and streams, and not much of it is found. The underbrush consists of moose maple, alder, hardhack and mountain ash. The black spruce is the prevailing kind of timber in this township, and the largest and best trees are found along the shores of the lakes and streams, and are considerably scattered. Small spruce and tamarac are the only kinds of timber found in the muskegs.

There is also a large quantity of poplar and white birch in this township, but is on higher land, and around the shores of some of the lakes and streams, and is also scattered.

The tamarac is the same as I found last season, being all half alive, or dead, the reason of its dying, I learned from an old timer of the country, who says that this result was caused by a small insect.

The balsam is nearly all of small dimensions, the largest being found along the streams and lakes.

There is not much balm of Gilead found in this township.

With respect to the reserving of any section for lumbering, I am of the belief that it is not necessary, as the good timber of large dimensions is scattered over the whole area, and not much in any one place, but all the timber is suitable for pulp wood.

We saw considerable game in this township, but principally moose and partridge. We fished in most of the small lakes, but were not very successful. The water in some of the lakes is clear and bright, and there is very little lime in it, as the water is quite soft. The lakes having the clearest water are those having no inlet or outlet. The water in the other lakes is more or less colored from the streams emptying into them.

Under the head of "Soil" I beg leave to report that I found it to be principally clay and clay loam. On the lower levels there is a heavy growth of moss, then from four to eighteen inches of black muck, and then the clay. The black muck holds the water. Clay loam is found in the higher land, where there is not so much moss. In the muskegs, where the timber is small, I found a thin layer of moss, then a few inches of muck, then the clay. The muskegs have all clay bottoms. There is only one wet muskeg in this township, being parts of lots eight and nine, concessions three and four. The land in this part of the Province can be easily cleared, as the roots of the trees do not penetrate the clay, but seem to run along between the clay and the muck, and when the land becomes burnt over and drained, the stumps can easily be moved. The country, although generally flat and level, can easily be drained, as the stream beds are sufficiently low to afford good drainage. The land around some of the lakes is rolling.

Under the head of "Minerals" I beg leave to report that I found no rock any place, but I found a large boulder on the east side of the lake, on lot six, concession four, but was of no value. I broke off a few specimens and examined them under a glass. I also found some boulders on lot ten, concession six, samples of which I am forwarding to your Department.

The magnetic variation of the compass was very irregular, sometimes changing two degrees in ten chains. I found the greatest irregularity crossing lots eight and nine, concessions five and six. The variation on lot nine was twenty-three degrees west. The variation on side line between lots eight and nine, concession six, at sixty chainage, was twenty-seven degrees and thirty minutes west.

The wet weather greatly impeded our work; one week we remained in camp five days. In the month of July, rain fell on twenty-four days. In the month of August rain fell on twenty-five days, and in the month of September rain fell on twenty days and snow on two days. In October up to the 10th day rain and snow fell on seven days. There was frost at McDougall's Chute on July 2nd. The next frost we had on August 26th.

With regard to the opening up and development of this township, would say that the Temiskaming and Northern Ontario Railway location runs north through the township of St. John and the Grand Trunk Pacific location runs east and west through the township to the north, so that this point will be within a few miles of the junction of the two, and when these lines are built the lands will be easy of access, and should become settled within the next few years.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) E. D. BOLTON,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,

Toronto, Ont.

(Appendix No. 35.)

TOWNSHIP OF STAUNTON, DISTRICT OF ALGOMA.

DELTA, ONT., November 28th, 1907.

SIR,—I have the honor to report that in accordance with your instructions dated the sixth day of May, 1907, I have completed the survey of the township of Staunton, in the District of Algoma.

I left Missanaibi Station on the Canadian Pacific Railway June 11th, with a party of fourteen men all told, crossing Dog Lake, Crooked Lake and Missanaibi Lake, I went down the Missanaibi river to the south boundary of this township, finding this route fairly good in high water with capable men in the canoes.

The east and south boundaries of this township were opened by Ontario Land Surveyor Niven in 1906, the west boundary and six miles of the north boundary were opened by Ontario Land Surveyor Speight in 1906, the other three miles of the north boundary were opened by Ontario Land Surveyor Niven in 1900. Using Ontario Land Surveyor Niven's notes as a guide for the south boundary and calculating the positions of the side lines between lots six and seven and twelve and thirteen with reference to the mile posts, I began the work of making all lots twenty-five chains and twenty-five links wide with the exception of six, twelve and twenty-eight, on the south boundary, making lot six twenty-five chains and forty-two links wide. In lot twelve we found a small lake and after leaving a road allowance about the same this gave lot twelve a width of thirteen chains and twenty-seven links.

Lot twenty-eight was made thirty-four chains and thirty-five links wide on the south boundary.

A width of fifty links was allowed within this township on each boundary as one-half the width of a road allowance, and within the township a width of one chain along each side line and concession line allowed for road purposes. Guide posts being planted in the south boundary marked "R" on the north side with the lot numbers, on the east and west sides excepting at starting points of centre lines of side road allowance, where posts were marked "R" on the east, north and west sides. The lot posts were planted in their proper positions at the corners of the respective lots one-half chain north and marked in accordance with instructions.

Meridians were run north astronomically from posts established at starting points of the centre lines of road allowances between lots six and seven, twelve and thirteen, eighteen and nineteen and twenty-four and twenty-five. Chords of latitude were run in the centre of the road allowance between the alternate concessions on which guide posts were planted marked "R" on the north and south and lot numbers on the east and west sides from which the lot posts were carefully located by means of perpendicular offsets and marked "R" on the side facing the road allowance, concession number on the opposite side and lot numbers on the east and west side. At the intersection of these chords of latitude with the centre line of side road allowance posts were planted marked "R" on the four sides, and posts planted at corners of adjoining lots marked "R" on side facing road allowance, the lot number on the east and west side and the concession number on the north or south side as concession demanded.

Road allowances one chain in perpendicular width were left on each side of the Missanaibi river, at the intersection of centre lines with the stream we planted posts one chain from the water mark, and on either side planted posts fifty links perpendicular from the centre line and one chain

perpendicular from the water line. Where lot corners were broken the lot posts were established by means of offsets and guide posts planted at the shore. Posts were made of the durable wood available and firmly planted where possible, frost interfering at the beginning of the work. Bearing trees were taken and recorded in the field notes for all lot posts.

I found an iron post one and seven-eighth inches in diameter at the southeast angle of the townships marked "Barker" on the northeast and "Staunton" on the northwest and on the southwest, northwest and northeast corners I found similar bars marked in a similar way. At the intersection of the centre lines at the following places iron bars one and one-quarter inches in diameter were planted alongside the wooden posts marked as stated. On the south boundary at centre of road allowance between lots twelve and thirteen and marked "Con." 1 "R" on the north, "XII" "R" on the east side, and "XIII." "R" on the west side.

At the intersection of centre line of road allowance between concession six and seven with the east boundary marked "Con. VII." "R" on the north side and "Lot I." "R" on the west side, and "Con. VI." "R" on the south side, and at its intersection with the centre line of road allowance between lots twelve and thirteen and marked "R" on the north, south, east and west, and at its intersection with the west boundary marked "Con. VII." on the north, "Con. VI." "R" on the south and "R" on the east side. At the north boundary at the intersection of the centre of road allowance between lots twelve and thirteen marked "XII." "R" on the east, "XIII." "R" on the west and "R" "Con. XII." on the south side.

Frequent observations for azimuth were taken, and magnetic variations noted to vary from six to seven and a half degrees to the west, a fair average, I consider, to be six and three-quarters west of the true meridian.

The Missinaibi river is a swift stream from five to eight chains in width and from four to twenty feet deep in high water. There are a number of small rapids through the township, but the most important for water power purposes and most dangerous to canoe men are the Beaver and Glassy falls, the former has a broken fall of twenty feet or more, the latter a clear drop of seventeen feet in high water time. This stream is a very swift, dangerous one throughout this township and should not be attempted by inexperienced canoe men under any circumstances. There are several small creeks draining the adjacent land to the river that appear to me to offer good outlets for any drainage work contemplated in the future. Along the river is a rolling or hilly country timbered with spruce and poplar from four to fourteen inches in diameter. Back from the river we find mostly a fairly level spruce country, there being occasional patches of dense alders with poplar and spruce ridges. The tamaracs of this country are mostly dry and those green tamaracs found were small and of no value as tie timber.

No traces of economic deposit were noticeable and the only bit of rock seen in the township being along the river. In the swamps is a heavy muskeg or moss from five inches to two feet in depth which holds the frost and does not allow the heat to get to the clay soil beneath. This clay would be a good agricultural producer in my opinion and will no doubt yet be a valuable asset to Ontario after proper drainage and clearing of the land. The absence of the summer frost was quite noticeable, and at the Northern Transcontinental Railway cache the keeper had an abundant garden of vegetables grown by himself and this cache is some two miles north of our northern boundary.

There are indications which lead me to believe that this township has been entirely burnt over some seventy-five or one hundred years ago, and the

slow growth of timber does not leave that product of much value for lumber, but will be excellent for pulp. The poplars ranging four to fourteen inches and the spruce from three to nine inches.

Game does not appear to be over plentiful, no wolves were heard through the entire work, fish in the river are not plentiful, speckled trout and pickerel being caught around the falls and pike being picked up along the stream, the absence of Indian camps and nets led us to the opinion that it was not considered a good fish stream.

Accompanying this report is a general plan, timber plan, traverse sheet, and field notes, with the usual affidavits.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) WALTER BEATTY,

O. L. S.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 36).

TOWNSHIP OF STRATHEARN, DISTRICT OF ALGOMA.

TORONTO, March 1st, 1907.

SIR,—In accordance with instructions dated the 15th day of May, 1906, having completed the survey of the township of Gallagher, I proceeded to the southeast corner of the township of Strathearn, where I found an iron bar along side a wooden post marked "XXXIII" on the northeast side, "XXXIV" on the northwest, "XXXII" on the southwest and "XXXI" on the southeast sides; here I planted a new wooden post and an iron bar one and seven-eighths inches in diameter, marked "Con. I" on the north side, "Strathearn" on the northwest side and "one" on the west side, and ran a chord of latitude due west astronomically for the south boundary and a meridian due north astronomically for the east boundary, the former being run a distance of five miles, sixty-nine chains and eighty-one links to its intersection with a line run due south astronomically from O.L.S. McAree's posts planted at the northwest corner of this township. The east boundary was run to its intersection with the southeasterly shore of Lake Como, posts being planted every eighty chains for the respective concessions, and the north boundary was run east astronomically from McAree's posts above referred to, to its intersection with the northwesterly shore of Lake Como, the northeast corner of the township being in the lake. Posts were planted on the south boundary at a distance of forty chains apart for each of the lots up to and including lot eleven, except when lot corners come in water. Lot twelve was found to be twenty-nine chains and eighty-one links wide.

The subdivision of the township was proceeded with in accordance to general instructions, meridians being run due north astronomically from the proper posts on the south boundary and the concession lines being run due west astronomically from the different posts on the east boundary, suitable wooden posts being planted on the concession lines at all lot corners, excepting where these were broken by lakes, in which cases the posts were planted in accordance with instructions.

Iron bars one and seven-eighths inches in diameter, properly marked, were planted at the following places: At the intersection of the east boundary with southeasterly shore of Lake Como, marked "Con. VI" on the north

side, "Strathearn" on southwest, and "I" on west side, at the southwest corner of the township marked "Con. I" on the north side, "Strathearn" on northeast, and "XII" on east sides at the northwest corner of the township marked "Con. VI" on south side, "Strathearn" on southeast, and "XII" on east side, and at the intersection of the north boundary with northwesterly shore of Lake Como marked "Con. VI" on south side and "Strathearn" on southwest sides.

Iron bars one and one-quarter inches in diameter were planted at the following places: On the south boundary at its intersection with westerly shore of small island in lake on lots six and seven, marked "Con. I" on north side, at the intersection of line between concessions three and four with line between lots six and seven marked "VI" on east, "Con. IV" on north, "VII" on west and "Con. III" on south, at the intersection of line between lots six and seven, with the north boundary of township, marked "VI" on east, "Con. VI" on south, and "VII" on west sides, on the east boundary at the commencement of line between concessions three and four marked "Con. IV" on north, "I" on west and "Con. III" on south side, and at the intersection of line between concessions three and four with the west boundary, marked "Con. VIII" on south, "XII" on east, and "Con. IV" on north sides.

A settler named Picard has a clearing on lot six, concession four, on both sides of the Canadian Pacific Railway, of about eighty acres, has four small log houses occupied by his hired men, a good barn and a small wharf on Lake Como. The cleared land is a good sandy loam and when I saw the farm last in August, the crop, hay, oats, potatoes and garden stuff was looking well, hay and oats harvested.

The south part of this township is rolling and in some places with hills as high as one hundred feet or more. The soil is generally light and stony but some very good patches of loam, both sandy and clay, especially on the east shore of Lake Como and the west shore on concession four, (Picard settlement); Lake Como extends from near the centre of the township to and out of the northeast corner, with a width of about a mile and a half, and is well stocked with salmon trout, white fish and pike. This lake, no doubt, in the near future will become a popular summer resort from its easy access by rail. The timber in the township is principally poplar, white birch, and jack pine on the high land, and spruce, cedar and tamarac in swamps. There are patches of burnt country in the northeast quarter of the township. There were no economic minerals found, the rock formation is Laurentian.

The islands in the different lakes were carefully surveyed and prominent trees marked with respective numbers of the islands, these are set forth on the traverse sheet.

The Canadian Pacific Railway runs through this township crossing the east boundary about the centre of concession one, and crossing the west boundary about the centre of the sixth concession, the width of the right-of-way being two hundred feet throughout the township.

Accompanying this report are a general plan, timber plan, field notes and traverse sheet.

I have the honor to be
Sir,

Your obedient servant,

(Sgd.) WALTER BEATTY,

Ontario Land Surveyor.

The Honorable,

The Minister Lands, Forests and Mines,
Toronto, Ont.

(Appendix No. 37.)

TOWNSHIP OF GALLAGHER, DISTRICT OF ALGOMA.

DELTA, Ontario, March 1st, 1907.

SIR,—I have the honour to report that in accordance with instructions, dated the 15th day of May, 1906, I have surveyed the township of Gallagher.

I commenced my survey at the southwesterly corner of the township, because it was more easily reached than the southeasterly corner, and ran a chord of latitude due east astronomically to intersection with westerly boundary of the township of McNaught produced southerly, making lots 12 to 2 inclusive, the uniform width of 40 chains, and lot one being 39 chains and 82 links wide. The west boundary was run due north astronomically to its intersection with the south boundary of the township of Cochrane, concessions one to five being made 80 chains deep. The subdivision was then proceeded with, by running the side lines due north astronomically from the proper points on the south boundary, and the concession lines being run due east astronomically from the west boundary. Suitable wooden posts were planted at the lot corners on the concession lines excepting where corners came in water, in which cases posts were planted in accordance with instructions. Iron bars 1 7-8 inches in diameter are planted at the four corners of the township, the one I planted was the southeast corner, being marked "I" on west, "Gallagher" on northwest and "Con. I" on north side, the one at the northeast corner of the township is marked "I" on west, "Gallagher" on southwest, "Con. VI" on south, "McNaught" on southeast and "XII" on east side, the one at the southwest corner is marked "XII" on east side, "Gallagher" on northeast, "Con. I" on north, "Chapleau" on northwest and "I" on west side, and the one at the northwest corner of the township is marked "Con. VI" on south, "Gallagher" on southeast, "XII" on east, "I" on west and "Chapleau" on southwest side.

Iron bars one and one-fourth inches in diameter were planted at the following places and marked as hereafter stated. On the south boundary line between lot six and seven, marked "VI" on west, "Con. I" on north, and "VI" on the east side; at the intersection of line between lots six and seven with line between concessions three and four marked "Con. III" on south, "VI" on east, "Con. IV" on north and "VII" on west side; on the west boundary at line between cons. three and four marked "Con. III" on south, "XII" on east, and "Con. IV" on north side; and at the intersection of line between concessions three and four with the east boundary, marked "Con. III" on south, "I" on west and "Con. IV" on north side.

Frequent observations for azimuth were taken, the variation of the magnetic needle being fairly constant at $3\frac{1}{2}$ ° west of the true north.

This township is much broken by lakes taking up in all about 15 per cent. of the total area. Loon Lake extends from the northeast corner of lot eleven, concession one, to and across the north boundary of the township, and has a large number of islands, many of which are suitable for camping purposes, and as this lake abounds with pike and salmon trout, it will probably become a favorite summer resort. All of the islands were carefully surveyed and a prominent tree marked on each as shown on the traverse sheet. The land is mostly sandy and stony, the southwesterly portion is rolling and broken, rocky ridges showing in places. The remainder is fairly level, but is not suitable for agricultural purposes. All of the township, excepting the northeasterly quarter is brule of about fifteen years' date with scattered patches of green timber, the northeasterly quarter is covered

with mixed timber, white birch, poplar, balsam, spruce and banksian pine from four to twelve inches in diameter, with small scattered groves of red and white pine.

No indications of economic minerals were noted and there are no water powers in this township.

Accompanying this report are a general plan, timber plan, traverse sheet and field notes.

I have the honour to be,

Sir,

Your obedient servant,

(Sgd.) WALTER BEATTY,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 38.)

TOWNSHIP OF DEVITT, DISTRICT OF ALGOMA.

DELTA, Ontario, December 18th, 1907.

SIR,—I have the honor to submit the following report on the survey of the township of Devitt in the district of Algoma, performed under instructions from your department, dated May 6th, 1907.

This township is bounded on the south by the township of Staunton, which was subdivided by me this year, on the east by the township of Eilber, and on the north and west by unsurveyed lands of the crown. At present, access to it is most easily obtained by means of the canoe route from Missanabi Station on the main line of the Canadian Pacific Railway, through Dog Lake, Crooked Lake, Missanabi Lake and down the river of the same name which passes through the southeast corner of the township.

I commenced my survey by chaining and posting the south boundary from the southeast corner, westerly, the posts being planted in accordance with instructions, leaving a road allowance, one chain wide between lots six and seven, twelve and thirteen, eighteen and nineteen and twenty-four and twenty-five, and projecting meridians north astronomically in the centre of these road allowances. A road allowance, one chain wide was left between the alternate concessions, the centre lines of which were run due east and west astronomically. Suitable wooden posts of the most durable material available, and properly marked, were planted along the concession lines and along the road allowances adjoining lakes and streams in accordance with instructions, the necessary information being recorded in the field notes.

In addition to this, iron bars, one and one-quarter inches in diameter, were planted on the side line between lots twelve and thirteen at its intersection with the south boundary marked "R" on north, south, east and west sides, and "Con. I" on north, at its intersection with line between concessions six and seven, marked with four "R's" and at its intersection with the north boundary marked "R" on east, south and west sides, also on line between concessions six and seven at its intersection with road allowance around lake on lot one, marked "R" on south, east and north sides, and "I" on west, and at its intersection with west boundary marked "R" on north, east, and south sides.

The one and seven-eighths inch iron bars are marked at the southeast corner of the township "XCIIX. M.", "Devitt" on northwest, "Barker" on southeast, "Eilber" on northeast, and "Staunton" on southwest sides; at the southwest corner, "CVIIIM." on east side, "Staunton" on southeast, and "Devitt" on northeast sides; at the northeast corner, "Devitt" on southwest, "Eilber" on southeast, "IXM" on south, and "R" on west and south sides; and at the northwest corner "Devitt" on southeast, "IXM.+08 links" on south and "R" on south and east sides.

The field notes were systematically kept with a view to showing all chainages, posts and bearing trees, size and quality of timber, character of soil, creeks and other information acquired through the progress of the survey.

Frequent observations on Polaris at elongation were taken for azimuth and the magnetic variation was found to be fairly constant at six degrees and thirty minutes west.

The surface of this township is of a flat or gently undulating character, fully eighty per cent. being swampy and few outcrops of rock were met with, these being of small area.

The soil appears to be of excellent quality, being clay and clay loam, and is generally covered with a light deposit of black mould. As is usual in this country, the soil in the low lands is covered with a thick growth of moss, and will require drainage before it can be cultivated to advantage.

The main drainage channel is formed by Six Mile Creek, which flows diagonally through the township and empties into the Missanabi river. The flow of this stream is retarded at intervals by natural dams of boulders, forming small rapids which, if removed, would greatly increase its carrying capacity. One fair sized lake and three small ponds only were seen, but the township is well watered, small creeks containing fair drinking water being scattered throughout.

Spruce is by far the most abundant timber, with poplar, white birch, tamarac, balsam and cedar following in order and seldom exceeding ten inches in diameter. This timber is of little commercial value, except for pulpwood and fuel, but it is very plentiful. The bush is generally thick, and in places is filled with underbrush.

Moose were seen occasionally through the summer, and the presence of numerous "dead falls" show that fur-bearing animals such as martin, fisher, otter, etc., are not wanting.

Wild strawberries were found on the fourteenth of August, and a few raspberries were seen in the windfalls. No traces of economic minerals were noticed.

The National Transcontinental Railway will, when constructed, pass through this township, but at present the exact location has not been decided.

Accompanying this report are a general plan, timber and field notes.

I have the honor to be,
Sir,

Your obedient servant,

(Sgd.) WALTER BEATTY,
Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 39.)

TOWNSHIP OF BOWYER, DISTRICT OF NIPISSING.

LITTLE CURRENT, October 19th, 1907.

SIR,—I have the honor to submit to you the following report on the survey of the township of Bowyer, in the District of Nipissing, under instructions from your department dated June 11th, 1906.

On account of the Ontario and Quebec boundary survey occupying nearly the whole season. I did not attempt to subdivide the township last year.

I left here on July 2nd and travelled by way of McDougall's Chute and Black and Abitibi rivers, and arrived on the ground on the 11th July. On the following day, I commenced the survey at O.L.S. Galbraith's 42 mile + 9 chains post, where his base line intersects Abitibi Lake, and which forms the southeast angle of the township of Bowyer. His base line forms the south boundary of this township. Lots 40 chains in width were laid out along this boundary, and our lines were run from Galbraith's mile posts on it. The township of Galna lies to the south of Bowyer. The north boundary was run due east from O.L.S. Newman's posts at the northeast angle of Marathon, and the east boundary was run due north from O.L.S. Galbraith's 42 mile post on the base referred to 9 chains west from the shore of Abitibi Lake.

Lot "A," concession I. is bounded by this line run due north and Abitibi Lake.

Regular lots 40 chains in width and 80 chains in depth or thereabouts were laid out throughout the township. All lines were run east and west, and north and south astronomically. A 6 inch Burt's solar compass was used to obtain the meridian.

Six inch posts, except in a few places where the timber was small, were planted at the corners of lots, and the proper lot numbers cut thereon. The lot numbers and the name Bowyer were cut on the wooden and iron posts already planted at the southeast, southwest and northwest corners of the township.

At the northeast angle, an iron post $1\frac{7}{8}$ inches in diameter was planted beside the wooden one, with the name of township and lot numbers cut on it in the usual way. Iron posts $1\frac{1}{4}$ inches in diameter were also planted where the line between concessions 3 and 4 intersects the east and west boundaries, also where the line between lots 6 and 7 intersects the north boundary and the line between concessions 3 and 4, this being the centre of the township. Where the line between lots 6 and 7 intersects the south boundary, one had been planted by O.L.S. Galbraith.

The survey lines on the Transcontinental Railway were intersected in a great many places by our lines, but I have shown on the plan where it is said by their engineers the line will probably be located. Near the confluence of the Circle and Low Bush rivers, a start had been made just before we left the vicinity, about the end of September, to cut the right of way.

On the Low Bush river in lot 7, concession 5, there is a water power from a 6 foot fall. I have calculated the power at about 630 h.p. at average low water (see p. 23 in field notes). As there are banks rising to about 30 feet on either side of the fall, it is possible that a considerable power might be developed.

I took very great precaution against forest fires by instilling into every one of the party the necessity of being careful about fire, and seeing that no fire was left at any place.

Nearly every day in the week it rained during nearly the whole time we were engaged, and one or two days or more in the week the rain was heavy enough to compel us to quit work. This, no doubt, owing to the great tracts of wet country and unbroken forest, is peculiar to the country.

The lines were well cut out and blazed.

[The township for farming purposes may be called very good. The land is nearly all clay, and has a large percentage dry enough on nearly every lot to enable a settler to clear and produce a crop in a short time. On lot 8, concession 2, there are about 40 acres of rock which probably is all there is in the township, except at the rapids along the Low Bush river.

In concessions 3, 4 and 5 near the west boundary there are about 2,000 acres of very wet muskeg, in which there is very little timber. There is a very small percentage of muskeg in the balance of the township. The township is fairly level.

The Low Bush, Circle and Dokis rivers, which flow through a great portion of the township are fine streams, and make the country most attractive. With the exception of some rapids near the north side of the township on the Low Bush river, the rivers flow with a gentle current, and have a good depth. They empty into Abitibi Lake near the east boundary. The Dokis river is from one to two chains wide, the others average nearly three chains wide.

The timber is black spruce, poplar, birch, balsam, balm of Gilead and jack pine, also dry tamarac. With the exception of the jack pine, the timber is pretty evenly distributed, and attains in places a considerable size, the black spruce up to 13 inches in diameter and the jack pine 15 inches, the poplar to 20 inches.]

The jack pine is principally in the 5th and 6th concessions.

On the line between concessions 3 and 4, across parts of lots 4 and 5, there is a distinct path of a cyclone about 1,000 feet wide in a southeasterly course.

Small game is very scarce. There were tracks of moose and red deer and bear. Some pike and pickerel were caught in the rivers.

Small clearing on lot 1, con. 3; also small clearings and houses on lots 6 and 7, con. 4, are shewn in notes and plan. In the returns is enclosed a schedule regarding them.

Wild currants, skunk berries, high bush and swamp cranberries are the principal small fruits.

The measurements on the traverse of the waters were made with a Stadia.

No minerals were found.

The west boundary was not measured. The lengths of the lots are deduced from the closing of the concession lines with O.L.S. Newman's posts, and the notes from his notes of survey of Marathon.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) T. J. PATTEN,
Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 40.)

PART OF THE TOWNSHIP OF COLEMAN, DISTRICT OF NIPISSING.

TORONTO, May 11th, 1907.

SIR,—I have the honor to submit the following report on that part of the township of Coleman surveyed by me under instructions from your department, dated the 16th day of March, 1907.

This area lies to the west of that portion surveyed by Ontario Land Surveyor W. J. Blair in 1905, and is bounded on the west by the Montreal River and the old Gillies timber limit line run by Ontario Land Surveyor J. F. Whitson in 1903, and on the south by the Gillies timber limit line run by Provincial Land Surveyor William Bell in 1877.

I proceeded to the work on the 20th day of March and after the preliminary work of getting camp in order and taking an observation on polaris for meridian commenced the survey by running due west from the cedar post planted by Ontario Land Surveyor W. J. Blair at the southwest angle of lot 18, in the 6th concession, using this line as a base to run the various side lines north and south therefrom and in like manner using the side line between lots twenty-two and twenty-three as a base to run the various concession lines east and west therefrom to the waters of Bay Lake and the limit line or the mining location boundaries respectively.

Wooden posts were planted at the proper lot angles, and the distances and bearing to the various bearing trees carefully noted. Iron posts one and seven-eighths inches in diameter were planted beside the wooden posts and marked at the following points:—

1st. At the intersection of the north boundary of the township with the west shore of Bay Lake, marked "Coleman" on the southeast side.

2nd. At the intersection of the south boundary of the township with the west shore of Bay Lake, marked "Coleman, Con. I." on the north side, "XIX." on the west side.

3rd. At the southwest angle of the township, marked "Coleman" on the northeast side, "Con. A." on the north side, "XXII." on the east side.

4th. At the intersection of the north limit of the township with the east shore of Trout Lake, marked "Coleman" on the southeast side.

That portion of the township to the north of Montreal river and Portage bay is well timbered with banksian, white and red pine, birch, spruce and poplar, varying in size from twelve inches in diameter down. Lot twenty-two, concession "A" is well timbered with birch, cedar, spruce and pine from twenty inches in diameter down. The balance of the township is covered with second growth pine, birch, poplar and spruce from two to six inches in diameter.

Owing to the activity in mining development in that section of the country several mining camps and other buildings were noted. These may be described as follows:—

1st. On the north part of lot twenty, concession six, and east of McLaren lake, three new buildings were in the course of erection by the Cobalt Consolidated Mining Company.

2nd. On the southerly point of lot twenty-two, concession five, at the entrance to Portage bay, is situated an old Hudson Bay Company's trading post consisting of three buildings.

3rd. On lot twenty-four, concession five, north shore of Montreal river, one Thomas O'Neil has about three acres chopped and a small cabin erected.

4th. On lot twenty-six, concession five, there is a small unoccupied house and about ten acres chopped and partially burnt over, on the north side of the Montreal river.

5th. On lot twenty-six, concession six, at the foot of Pork Rapids, on the Montreal river, William Morrison has erected a store and dwelling house, and C. H. Burk a dwelling house.

6th. On the north part of lot twenty, concession one, and close to Bay lake, there is a small miner's hut, unoccupied.

7th. On lot twenty-two, concession two, one Timothy Crowley has built a mining camp and is doing development work. The buildings and improvements on the mining location within the limits of the township were not noted.

Accompanying this report are plan and field notes of the survey.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) L. V. RORKE,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 41.)

TOWNSHIP OF GLACKMEYER, DISTRICT OF NIPISSING.

ALVINSTON, Ont., December 12th, 1907.

SIR,—I have the honor to submit the following report of the survey of the township of Glackmeyer, in the District of Nipissing, on the Abitibi river, made under instructions dated May 6th, 1907, to survey the same into lots of 150 acres each.

I left Alvington July 9th, and after arranging for supplies, canoes, men, etc., I proceeded from McDougall's Falls down Black river and Abitibi river to the Buck Deer Rapids, where Thomas Fletcher and myself were unfortunately capsized and he drowned. After searching for his body and arranging for further search our party proceeded on the way down and commenced the survey much disheartened.

Commencing at the ninth mile post planted by Ontario Land Surveyor T. B. Speight, on the base line run east astronomically from the one hundred and sixty-second mile post on the Algoma-Nipissing boundary. I ran north astronomically by turning off the proper angle and at the Abitibi river obtained an observation by polaris and found the line correct. I ran north nine miles from the base line and turned west and ran nine miles to the district boundary and struck this line eight links south of the one hundred and seventy-first mile post planted on the boundary by A. Niven, Ontario Land Surveyor.

During the progress of the above survey of the boundaries I laid off the lots in the usual way and proceeded with the survey as shown on the plan.

Owing to the continued rainy and cloudy weather it was sometimes very difficult to obtain observations, but a sufficient number were made, as shown in the field notes.

The survey was made with transit and the lines have been well opened out and attention was paid to planting durable posts, and in only a few cases were posts other than spruce, cedar or tamarac used. They were marked with a scribe and well driven in.

The following iron posts were planted in Glackmeyer, one and seven-eighths inch iron post at the northeast angle, marked on the north, south, east and west sides with the letter "R"; on the south "Con. XII."; on the west "Lot I." One and seven-eighths inches iron post at the northwest angle marked on the north, south, east and west sides "R"; on the south "Con. XII."; on the east, "Lot XXVIII." and on the southeast "Glackmeyer."

One and one-quarter inch iron post at the intersection of the centre lines of the east boundary and the road allowance between the sixth and seventh concessions, marked on the north, south, east and west sides "R"; on the north, "Con. VII."; on the south, "Con. VI."; on the east "Lot I."

One and one-quarter inch iron post at the intersection of the centre of the road allowances between concessions six and seven, and lots twelve and thirteen, marked on the north, south, east and west sides "R"; on the north "Con. VII."; on the south "Con. VI."; on the east "Lot XII."; on the west "Lot XIII."

One and one-quarter inch iron post at the intersection of the centre of the road allowance between concessions six and seven, and the west boundary marked on the north, south, east and west sides "R"; on the north "Con. VII."; on the south "Con. VI."; on the west "Lot XXVIII."

One and one-quarter inch iron post at the intersection of the centre of the road allowance between lots twelve and thirteen, and the south boundary marked on the north, south, east and west sides "R"; on the north "Con. I."; on the east "Lot XII."; on the west "Lot XIII."

One and one-quarter inch iron post at the intersection of the centre of the road allowance between lots twelve and thirteen, and the south boundary marked on the north, south, east and west sides "R"; on the south "Con. XII."; on the east "Lot XII."; on the west "Lot XIII."

The one and seven-eighths inch iron post found at the southwest angle was marked, additionally on the northeast side "Glackmeyer"; on the north "Con. I."; on the east "Lot XXVIII."

The one and seven-eighths inch iron post found at the southeast angle was marked on the northwest "Glackmeyer"; on the west "Lot I"; on the north "Con. I."

GENERAL FEATURES.

The township is generally level or gently undulating and fairly dry with portions east of the Abitibi river and along the north boundary somewhat higher than in the body of the township west of the river.

Two lakes occur and a few large ponds. The Abitibi river flows through the eastern portion of the township.

The land can be easily drained, for the general fall is good, and the presence of small gullies, and two fairly large creeks, will afford a good outlet.

The land is covered with a heavy moss at present, which when cleared off, will leave the land much drier, naturally than it is to-day.

There is a very little muskeg, and nearly ninety per cent. of the township will be good agricultural land.

A glance at the timber map will give a good idea of the elevation of the land in general, the higher land having the heavier timber.

The muskegs are not deep and are underlaid at a depth of eighteen or twenty-four inches with a clay subsoil.

SOIL.

In general the soil consists of a clay covered with a loam, say from four to ten inches, or in the lower ground with a muck from six to twelve inches.

This clay contains a slight admixture of sand which will render it easily workable, though there does not appear to be as much sandy admixture as in the townships to the west and to the south of Glackmeyer.

TIMBER.

The township is timbered with a growth of spruce, dead tamarac, poplar, birch, balsam, with a few balm of Gilead, and in places some cedar. Alders grow everywhere.

It is generally mixed. The sizes run, in the southern portion four inches to seven inches average, in the central portion west of the Abitibi river, from four inches to eighteen inches, while along the east and north boundaries the sizes run from four inches to twenty-four inches.

The tamarac, though killed some time ago by the insect pest which passed over this country some years ago, is still sound and will make good railway ties.

The general timber is large enough for building purposes, and the runs of spruce in this township will be valuable for pulpwood.

MINERAL.

There are only one or two exposures of rock in this township, and these are of a Huronian origin, and of a grey slaty nature. In lots twenty-four and twenty-five in concession ten a few granitic stones are to be found, but no minerals were noticed during the survey.

WATERS.

The Abitibi river flows through the eastern portion of the township and is about five or six chains wide. The current is good probably on account of being only a few miles above the Long Sault.

A small rapid occurs on lot three and four in the sixth concession with a fall of about three feet in fifteen chains, but it cannot be considered a water power, though a dam might develop enough power for a small mill.

The water in the Abitibi is impregnated with the clay from the lands through which it passes.

Two lakes occur and a number of large ponds (generally in muskeg). Two large creeks drain the land west of the river.

FISH AND GAME.

Game is scarce in this township, owing, no doubt, to work going on on the Transcontinental Railway. A few signs of moose and bear were seen but the smaller game with the exception perhaps of beaver has been pretty well exhausted by the Indians.

Maskinonge may be caught in the river with the net, and in the lakes large pike and pickerel may be caught with the troll.

Variation of the Magnetic Needle.—The Magnetic Variation is fairly constant and is about eight and two-thirds degrees west, though in places this varies slightly.

I submit with this report field notes and traverse notes, a general plan and a timber map.

I have the honor to be,
Sir,

Your obedient servant,
(Sgd.) A. S. COPE,

Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto, Ontario.

(Appendix No. 42.)

TOWNSHIP OF HANNA, DISTRICT OF NIPISSING.

LISTOWEL, Ontario, December 11th, 1907.

SIR,—In pursuance with instructions dated May 6th, 1907, from the Honorable the Minister of Lands, Forests and Mines, I beg leave to report the following: I had the same difficulty in securing suitable canoes for my trip this year. I had canoes ordered from the Peterborough firm, and just when ready to start for my work, I received word that my canoes could not be shipped. However, I was fortunate in getting canoes in Orillia and North Bay after a delay of two weeks. I left Toronto on June 25th, and reached Englehart on the Temiskaming and Northern Ontario Railway, on June 27th. This point is one hundred and thirty-eight miles north of North Bay, and was at that time as far north as the regular trains were running. From Englehart, we travelled north on the construction train to McDougall's Chute, a distance of sixty-five miles. The steel on the railway was laid to this point on July 2nd. McDougall's Chute is situated on the Black river. We left McDougall's Chute on July 2nd, with seven canoes, fourteen men, camp outfit and provisions, and got as far as the junction of the Black and Abitibi rivers that night, a distance of fourteen miles; the next day we travelled down the Abitibi river to the boundary line between the townships of Pyne and St. John, on line between concessions two and three, a distance of 19 miles. In this distance there are three small portages, one at Iroquois Falls about five miles below the Black river, and the other two at the Buck Deer Rapids, ten miles below the falls. At these rapids we took our canoes down with a light load and portaged the rest of our outfit. This rapid is not a bad one to run, but one has to be careful. We ran down on the left side for the upper part of the rapid, and took the right side for the lower part.

The current in the Black river is very slow, but in the Abitibi it is rapid. The water in both these streams was very high, as the season was a late one.

From this point on the Abitibi river I proceeded west along the line between concessions two and three in St. John township to the east boundary of the township of Hanna, a distance of six miles.

It rained nearly every day on our way in to the work, so that we made very slow progress. I commenced on July 17th, the survey of the township of Hanna, at the southeast angle, running north from Ontario Land Surveyor, W. Galbraith's base line, and west from the west boundary of the township of St. John. During the survey of this township the weather was decidedly wet, the prevailing winds being southwesterly. I may say that I read the Act for the Preservation of forests against fire once, but had no occasion to read it again.

The iron post furnished me by your Department, I planted and marked as follows:—

The iron post one and one-quarter inches in diameter and three feet long, planted alongside a wooden post, on the east boundary of the township between concessions three and four is marked "Con. III." on the south side, "Con. IV." on the north side, and "I." on the west side. The wooden post is similarly marked.

The iron post one and one-quarter inches in diameter planted alongside a wooden post, on the south boundary of the township, on the side line between lots six and seven, is marked, "Con. I." on the north side, "VI." on the east side, and "VII." on the west side. The wooden post is similarly marked.

The iron post one and a quarter inches in diameter planted alongside a wooden post, on the north boundary, where the side line between lots 6 and 7 intersects it, is marked "Con. VI." on the south side, "VI." on the east side, and "VII." on the west side. The wooden post is similarly marked.

The iron post one and one-quarter inches in diameter, planted alongside a wooden post, on the west boundary, between concessions three and four is marked, "Con. II." on the south side, "Con. IV," on the north, and "XII." on the east side. The wooden post is similarly marked.

The iron post one and one-quarter inches in diameter planted alongside a wooden post, at the centre of the township where the side line between lots 6 and 7 intersects the line between concessions three and four, is marked, "Con. III." on the south side, "Con. IV." on the north side, "VI." on the east side, and "VII." on the west side. The wooden post is similarly marked.

The iron post one and seven-eighths inches in diameter, planted alongside a wooden post, at the northeast angle of the township is marked "Con. VI." on the south side, "St. John" on the southeast, "Hanna" on the southwest, "XII." on the east side, and "I." on the west side. The wooden post is similarly marked.

The iron post one and seven-eighths inches in diameter planted alongside a wooden post at the southeast angle of the township is marked "Con. I." on the north side, "XII." on the east side, "I." on the west side, "St. John" on the northeast, and "Hanna" on the northwest side. The wooden post is similarly marked.

The iron post one and seven-eighths inches in diameter, planted alongside a wooden post at the southwest angle of the township is marked "Con. I." on the north side, "XII." on the east and "I." on the west, "Hanna" on the northeast, and "Reaume" on the northwest. This post is also marked "C.L.M." and is on the boundary line between the districts of Nipissing and Algoma. The wooden post is similarly marked.

The iron post one and seven-eighths inches in diameter, planted alongside a wooden post at the northwest angle of the township is marked "Con. VI." on the south side, "XII." on the east side, "Hanna" on the south-

east side, and "Lamarche" on the northeast side. The wooden post is similarly marked. This post is also marked "C.L.V.I.M.", and is on the boundary line between the districts of Algoma and Nipissing.

Under the head of timber I beg leave to report the following:

The kinds of timber found in this township are, in order to their relative abundance, spruce, poplar, tamarac, white birch, balsam, balm of Gilead, white spruce and cedar. The only place where I found white spruce and cedar was along the rivers and lakes and small streams. The underbrush consists of moose, male, alder, hardhack, cedar and mountain ash, the black spruce is the prevailing timber in this township, and the largest is found along the rivers and lakes, and is consequently scattered, small spruce and tamarac are the only kinds of timber found in the muskegs. There is also a large quantity of poplar and white birch in this township, and is found on higher land. The best of it being scattered, but it is all of sufficient size for pulpwood, and the largest is suitable for lumber. The tamarac is the same as I found last season, being all half dead or dead. The reason of its dying, I learned from an old timer of the country, who says that the result was caused by a small insect. The balsam is nearly all of small dimensions, the largest of it being found along the lakes and rivers. With regard to cedar and white spruce, I beg to say that the best is found along the rivers and lakes, but there is only a small quantity of it in the township. The largest and best timber is found along the banks of the Frederick House river, and is composed of all kinds, and I would recommend that one mile back, from each side of the river for the whole length of the township, be reserved for lumbering.

There are no rapids or water-falls on the river in this township. The current will average from $1\frac{1}{2}$ to 2 miles per hour.

The water in the river remained at about the same level until the first week in October. The banks of the river are, for the most part, low, and there are no high cut banks in this township.

We saw considerable game, principally moose, also numerous partridge, but no rabbits. We fished in all the small lakes with troll, and hook and line, and caught considerable pike in Warrick Lake.

Under the head of "Soil," I beg leave to report that I found it to be clay and clay loam. In the lower level there is a heavy growth of moss, then from 4 inches to 18 inches of black muck and then the clay. This black muck holds the water. All the water in this township is good. Clay loam was found on the higher land where there was very little moss. In the muskegs where the timber is small, I found a thin layer of moss, then a few inches of muck and then the clay. The muskegs have all clay bottoms. The land in this part of the Province can be easily cleared, as the roots of the trees do not penetrate the clay, but seem to run along between the clay and the muck, and when the land becomes burnt over and drained the stumps can easily be moved. The country, although flat and level, can easily be drained, as the river and stream beds are sufficiently low to afford good drainage. The land along the banks of the river is rolling in places, but for the most part is level.

Under the head of "Minerals," I beg to report that I found no outcropping of rock, nor any stony land or boulders, and consequently found no trace of minerals.

The magnetic variation of the compass was very irregular, changing two degrees some places in a distance of ten chains. I found the average variation to be 8 degrees west.

The wet weather greatly impeded our work. One week we were in camp five days. In the month of July, rain fell 24 days. In the month of August, rain fell on 25 days. In the month of September, rain fell on 20 days. Snow fell on two days. In October, up to the 10th, rain and snow fell on 7 days. We had frost at McDougall's Chute on July 2nd. The next frost was on August 26th.

With regard to the opening up and development of this township, I would say that the Temiskaming and Northern Ontario Railway location runs north through the township of St. John, and the Grand Trunk Pacific location runs east and west through the township to the north, so that this part will be within a few miles of the junction of the two, and when these lines are built the land will be easy of access, and should become settled within the next few years.

Respectfully submitted by
(Sgd.) E. D. BOLTON,
Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto.

(*Appendix No. 43.*)

TOWNSHIP OF KENNEDY, DISTRICT OF NIPISSING.

TORONTO, Ontario, December 21st, 1907.

SIR,—I have surveyed the township of Kennedy, in the district of Nipissing, according to instructions dated May 15, 1907, and beg to report as follows:—

I arrived at the township on August 1st, and owing to the incessant rain and cloudy skies I was unable to obtain astronomic observation of any description until August 22nd. Accordingly, I ran the line between concessions two and three, the line between concessions four and five, and the line between concessions six and seven, also the side lines up to concession five by turning angles from Ontario Land Surveyor Speight's base and meridian lines. On August twenty-second, I succeeded in obtaining an observation on side line between lots eleven and twelve. On August twenty-sixth, and September sixth, I took observations on the east boundary. From this time on, I used these lines as bases, turning angles from them. In running the north boundary I was only able to get one observation on September seventeenth. On the whole, I found it very difficult to do accurate work on account of the rain which fell on an average of five days a week.

This township is surveyed on the new method of survey approved by Order-in-Council, dated April twenty-fourth, nineteen hundred and six. It consists of twelve concessions, each of which has a depth of approximately fifty-nine chains, fifty links. In each concession, there are twenty-eight lots. Lot number one at the eastern end of concessions is a narrow lot, and lot number twenty-eight is a wide lot. All other lots being twenty-five chains, twenty-five links in width, except adjoining side roads as shown on plan. The lines are run in the centres of the road allowance between every second concession and between every sixth and seventh lots. At the front angles of the lots, at right angles from the centre line of the concession,

road allowance posts (mostly of spruce) were planted fifty links on each side, north and south of the centre line of the concession road allowance. The lot numbers are marked on the east and west sides of the posts. The concession numbers are marked on the side of the posts facing the concessions, while on the other side, facing the road allowance, the letter "R" is marked. Posts are also planted on the centre lines marked on the east and west sides with the lot numbers, and on the north and south sides with the letter "R."

At the intersection of the centre lines of the different concession road allowances with the centre line of the side road allowances posts are planted, marked "R" on all four sides, also posts are planted at the four lot corners formed by the intersection of the road allowances. These posts are marked "R" on the two sides facing the road allowance, having the lot numbers on the side facing the lots and the concession numbers on the sides facing the concessions. Nearly all the posts planted are four inch square spruce posts. Those at the end of the concessions are five inches square, and those at the corners of the township are six inches square.

I planted an iron post one and one-quarter inch in diameter at the intersection of the south boundary with the centre line of road allowance between lots numbers twelve and thirteen, marked "Con. I., Kennedy" on the north side, "Lot 13" on the west side, "12" on east side; and "R" on south side, also planted an iron post one and one-quarter inch in diameter at the intersection of road allowance between concessions six and seven with the east boundary, marked "Kennedy" on west side, "Con. VI." on south side, "Con. VII." on north side, "R" on four sides, also a similar post at the intersection of this line with the west boundary marked "VI." on south side, "VII." on north side, "Kennedy" on east side. I also planted an iron post one and one-quarter inch in diameter at the intersection of the centre lines of the concession road allowance between concessions six and seven and the side road allowance between lots numbers twelve and thirteen, marked six on south side, seven on north side, twelve on east side and thirteen on west side. On the north boundary, at its intersection with the east boundary, I planted an iron post, one and seven-eighths inch in diameter, marked "Kennedy" on the southwest side and "R" on north, south, east and west sides, also a similar post at its intersection with the west boundary marked "R" on east, west, north and south sides, and "Kennedy" on southeast side. Where the north boundary is intersected by the centre line of road allowance between lots numbers twelve and thirteen I planted an iron post one and one-fourth inch in diameter marked "Kennedy" on south side, "12" on east side, "13" on west side. I marked the word "Kennedy" on the northeast side of the one and seven-eighth inch iron post planted by Ontario Land Surveyor Speight and marked "IX. Miles" which marks the southwest corner of Kennedy township. I also marked "Kennedy" on the northwest side of the one and seven-eighth inch iron post, planted by Ontario Land Surveyor Speight, marked "XVIII. Miles," which marks the southeast corner of Kennedy township.

I made a traverse survey (by stadia) of the Abitibi river, a plan of which accompanies my field notes.

TIMBER.

The greater part of the township is timbered with small spruce averaging from four to eight inches in diameter. On the higher land, there are about equal quantities of spruce, white birch, poplar and balsam, averaging from four to fourteen inches in diameter.

SOIL.

The soil is chiefly a light colored solid clay, which is almost entirely covered by moss varying from six inches in depth on the high land, to unknown depths in the muskeg, the greater part averaging two feet in depth. On some of the ridges the clay is covered by a layer of loam from six to twelve inches in depth. While I was in the township the land was very wet, but on two or three occasions when the rain stopped for a few days the water lowered so rapidly that I was led to believe that in an ordinarily dry season the land would be fairly dry with few swamps. There are ridges of high land along each side of the rivers running through the township. These rivers have many long shallow rapids, making them almost useless for canoeing purposes, even in high water. The lakes in the township were caused by beaver dams and are evidently shallow. The banks are low and swampy, making it difficult to determine high water mark with any degree of accuracy.

MINERALS.

I saw no signs of any economic minerals, the only rock visible being in the rapids of the rivers. There is also a small area of rock "graphite" covered by moss running across the east boundary on concession eight and across the line between concessions eight and nine in lot number one.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd. A. F. WELLS,

Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 44.)

TOWNSHIP OF BAYLY, DISTRICT OF NIPISSING.
SAULT STE. MARIE, Ont., September 26th, 1907.

SIR,—I have the honor to submit the following report on the survey of the township of Bayly, in the District of Nipissing, performed under instructions from your Department, dated May 6th, 1907.

As instructed, I commenced the survey at the southeast angle of the township of Marter, and the southwest angle of the township of Bayly, from which point I chained north along the east boundary of Marter one mile, where I found a post marking the first and second concessions of that township, from which point after taking an observation of polaris, I ran east astronomically six miles, giving the lots a uniform width of forty chains, I also chained the north boundary of Ingram, which I found correct except lot 12. I found a $1\frac{7}{8}$ inch iron post at the northeast angle of Ingram and the northwest angle of Pense, I then ran alternate side lines, as well as the east boundary, north astronomically from the proper points, laying off the various concession lines as instructed.

As I found a good wagon road running north and south at the southwest corner of the township, I planted a $1\frac{7}{8}$ inch iron post 50 links east and 50 links north of the true southwest angle of the township, marked on the northeast "Bayly," on the east "No. 1," on the north "Con. 1." I planted

a $1\frac{1}{2}$ inch iron post on the west boundary at the line between concessions three and four, marked on the east side "Bayly, Lot I.," on the north side "Con. VI.," on the west side "Marter," and on the south side "Con. III." At the northwest angle I found a $1\frac{1}{8}$ inch iron post marked on the northwest "Catharine," on the southwest "Marter, Co. VI.," on the west "No. I." I marked on the southeast "Bayly," on the south "Con. IV.," on the east lot I at which point took an observation of polaris and ran the north boundary east astronomically six miles, planting wooden posts at each mile, marked in accordance with instructions, and a $1\frac{1}{4}$ inch iron post with wooden post between lots 6 and 7, both marked on the south "Bayly Con. VI.," on the east "Lot 7," on the north "Skead," on the west "Lot 6."

At the northeast angle of the township I planted a $1\frac{1}{8}$ inch iron post with a wooden post, both marked on the southwest "Bayly," on the south "Con. VI.," on the southeast "Mulligan," on the east "No. 1," on the northeast "Rattray," on the northwest "Skead."

Iron posts one and one-quarter inches in diameter and three feet long were also planted as follows:—One at the intersection of side lines 6 and 7 with the south boundary, marked "Bayly, Con. I." on the north side; "Lot VI." on the west side, and "Lot VII." on the east side; one at the intersection of side line VI. and VII with concession line III and IV. marked "Con. IV." on the north side, "Con. III." on the south, "Lot VI." on the west, and "Lot 7" on the east side; one at the intersection of side line VI. and VII. with the north boundary, marked "Con. VI." on the south side, "Lot VI." on the west and "Lot VII." on the east side; one at the intersection of concession line III. and IV. with the west boundary, marked on the north side "Con. IV." on the south side "Con. III.," on the west "Marter," on the east Bayly Lot I. One at the intersection of con. line III. and IV. with the east boundary, marked on the north side "Con. IV.," on the south side "Con. III.," on the west "Bayly Lot XII." In all cases a wooden post was planted alongside of the iron post and marked the same as the iron posts. The other posts of the township are of wood and marked as shewn on the field notes.

The township of Bayly is generally rough and rocky, with a few small tracts of good clay land along part of the south boundary and a few small tracts of sandy loam soil along con. line V. and VI., and, on the whole, offers little inducement for settlers for agricultural purposes.

The township is well watered by numerous lakes and streams.

The rock exposures are of Huronian formation, schist, slate and shale, while occasional outcrops of granalite as distinguished from granite. I found no valuable mineral.

GAME.

I found moose in great numbers, but no trace of red deer or caribou. Fish, pike and pickerel.

I found no settlers but did find a few small clearings on the clay belt along part of the south boundary.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) THOS. BYRNE,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 45.)

TOWNSHIP OF PURVIS, DISTRICT OF NIPISSING.

LITTLE CURRENT, Ontario, October 23rd, 1907.

SIR,—I have the honor to submit to you the following report of the township of Purvis, in the district of Nipissing, in accordance with instructions from your Department, dated June 14th, 1907.

After completing the survey of the township of Bowyer this season, the account of my trip into the country will be found in my report of that township. I commenced the survey of Purvis at the iron post, one and seven-eighths inches in diameter beside the wooden one which I had planted at the northeast angle of Bowyer, and ran the north boundary east astronomically a total distance of four hundred and eighty chains and twenty-four links.

From the northeast angle of Purvis, I ran the east boundary, south astronomically three hundred and twenty-six chains and eighty-four links to the north shore of Lake Abitibi.

Regular lots were laid out forty chains in width and eighty chains in depth, or thereabouts, throughout the township.

Wooden posts, six inches in diameter, sometimes larger and in some cases where the timber was small a little smaller, were planted at the lot corners with the lot numbers plainly cut on them. Two bearing trees were marked at each corner, and the bearing and distance from the corner post entered in the field notes.

At the northwest angle as already mentioned, an iron post, one and seven-eighths inches in diameter, had been planted to mark the northeast angle of Bowyer, the name "Purvis," and lot numbers were cut on it, also on the wooden one. At the northeast angle a similar post was planted beside the wooden one, and similarly marked.

Iron posts one and one-fourth inches in diameter with the lot numbers cut thereon, were planted beside the wooden ones at the intersection of the line between lots six and seven, with the north boundary, and also where it intersects the line between concessions three and four, also where the line between concessions three and four intersects the east boundary. Where this concession line intersects the west boundary one had already been planted in the survey of Bowyer.

No iron post was planted where the west boundary intersects Abitibi Lake, where the east boundary intersects the lake there was also no iron post planted, but a cairn of boulders five feet at the base and thirty inches high was built around a tamarac post seven inches in diameter with the name "Purvis" and the lot numbers cut thereon. Iron posts were marked similar to wooden ones, that is the lot and concession numbers were cut on them. Those at township corners have the name of the township cut on the side facing the township.

Finding during the progress of the survey, that the number of iron posts required was short, I reserved a sufficient number for the base line. Just how the number came to be short it is hard to say. I found after some delay and trouble, that the iron posts sent to New Liskeard for me last June, had been delivered to a hardware merchant in that town, and possibly they were not all recovered.

Special attention was given to the correct marking of the one-half mile posts on the concession line.

All lines were well cut out and blazed. A six inch Burt's solar compass was used to find the meridian.

The magnetic variation was nine degrees, forty-five minutes, west and fairly steady.

The concession lines of Bowyer are produced into Purvis without any jog.

The timber consists of black spruce, poplar, jack pine, balsam, birch and balm of Gilead. Some cedar and ash was found along the shores of Abitibi Lake. A few white spruce were seen. The black spruce is found up to about thirteen inches, the poplar to about twenty inches. Jack pine to fifteen inches and balsam and birch to about twelve inches. There is considerable amount of dry tamarac, some of which is large enough for railroad ties.

The soil is principally clay, and nearly all fit for farming. There is sand and gravel on some of the hills, on a belt about a mile to one and one-half miles wide, which extends from the most southerly point of lot four, concession one, northerly to the south limit of lot five, in concession four, at the east bank of the Kaminisinokwa River. It is also found on the east boundary in concession five and six, also on the north boundary on lot nine along Joe's Creek. The only rock exposures are along Abitibi Lake from lot one to lot five.

Some muskeg was found on the line between concessions four and five, lots one, two, three and four. There is also some on lots four and five on the north boundary. The head of the bay, lots nine and ten, concession four, is also low lying country. The remainder of the township is fairly dry and level. Concessions one and two, on the point in the southeast are somewhat rolling. It will no doubt be a desirable township for settlers owing to its proximity to the railway, and Lake Abitibi.

The rainfall this season was excessive. There was more or less rain nearly every day, and one or more days in the week it rained hard enough to compel us to quit work.

A good pack trail was cut from the east bank of the Kaminisinokwa River, at the line between concessions three and four northeasterly to the line between lots four and five. Then along that line to about ten chains from the north boundary, then northeasterly to the north boundary and following it to the northeast angle.

The survey lines of the Transcontinental Railway were intersected in a great many places. I found from the engineers that the line will probably be located where I have shewn it on the plan.

On lot seven, concession three, on the north shore of Abitibi Lake, the Transcontinental Railway Survey has erected a log dwelling and storehouse. Mr. Quillish, the caretaker very kindly watched our supplies which we left there all season in a tent.

An Indian named Louis McDougall has built two dwellings and a stable on the shore of the lake on lot two, concession one. He has also a small clearing with a few potatoes.

The Kaminisinokwa River is navigable for canoes only to the line between concessions three and four.

Joe's Creek is navigable for canoes from its confluence with the Circle River, about half a mile north of the township to near its intersection with the north boundary in lot seven.

The stream emptying into Lake Abitibi in lot eight, concession four, is navigable for canoes to near the line between concessions four and five.

Accompanying this report I have forwarded plan, field notes, timber plan, account, etc.

The measurements in the traverse of the waters were made with a Stadia.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) T. J. PATTEN.

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto.

(Appendix No. 46.)

TOWN PLOT OF SMYTH, DISTRICT OF NIPISSING.

NEW LISKEARD, Ontario, December 2nd, 1907.

SIR,—I beg to report the following classification of lots as surveyed by me in the town plot of Smyth, district of Nipissing, as requested by your department on November 28th, 1907.

Class No. 1. Lots 83, 84 and 85.

Class No. 1. A. Lots No. 16, 17, 86-93 inclusive, 96, 98, 105 and 106.

Class No. 2. Lots A.B. 8, 9, 18, 25, 26, 41, 42, 57, 58, 72, 73,, 94, 95, 121, 122, 140 and 141.

Class No. 3. Lots No. C. D. E. 1-7 inclusive, 10-15 inclusive, 19-24 inclusive, 27-40 inclusive, 43-56 inclusive, 59-65 inclusive, 68-72 inclusive, 74, 75, 76, 78, 79, 80, 81, 99-104 inclusive, 107-120 inclusive, 123-139 inclusive, 142-150 inclusive.

Class No. 3. A. Lots No. 66, 67, 77, 82.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) JAMES H. SMITH,

Ontario Land Surveyor.

The Honorable,

The Minister of Lands, Forests and Mines,
Toronto, Ontario.

**(Appendix No. 47.)*

TOWN PLOT OF SMYTH, DISTRICT OF NIPISSING.

NEW LISKEARD, Ontario, December 2nd, 1907.

SIR,—In accordance with instructions received from your department dated October 21st, 1907, to subdivide part of broken lot six in the fifth concession of the township of James in the Temagami Forest Reserve, in the district of Nipissing, into town lots, I beg to report as follows:

On the 26th of October, 1907, I hired two experienced axemen, one chainman, and one assistant, purchased axes and other necessaries, and on Sunday evening at 7.30, we left for Latchford by the Temiskaming Northern

Ontario Railway, where we remained all night, and took the early boat on Monday morning up Bay Lake which connects with other boats up the Montreal River by which we arrived at Smyth town plot in the evening.

The survey was commenced the following morning by first locating the line between lots 5 and 6, concession 4, township of James. This was done by retracing the line between lots 4 and 5, concession 4, and running the line parallel to a line joining the limits of said line between lots 4 and 5 from a post planted by Ontario Land Surveyor, Alexander Baird in 1903, on the concession line between concessions 3 and 4, for lots 5 and 6, to its intersection with the southerly shore of Elk Lake (Montreal River), from which point a traverse was then run northwesterly along the southerly shore of Elk Lake to the probable westerly limit of the town plot.

The above mentioned work was then plotted, and a projected plan made of the subdivision by laying off lots at right angles in the general course to the lake front, as is shown on the finished plan, and leaving a road allowance of one chain in perpendicular width along said lake.

The subdivision was then commenced, by first running and chaining the southerly limit of Second Street from the easterly limit of the lot to the westerly limit of the subdivision. The easterly limit of Spruce Street was then run at right angles to it northerly to the southerly shore of Elk Lake, and southerly to the northerly shore of Bear River. These lines were used as base lines from which all the remaining lines were run. The points of commencement of the remaining street lines were then laid off on the above mentioned base lines, and said lines were run and chained. All lines crossing Bear River were made continuous and parallel to each other. The chainages at the intersection of these lines with Bear River, Elk Lake, and the other subdivision limits were noted, and the above mentioned projected plan was completed, leaving a road allowance of one chain in perpendicular width along Bear river, and the lots numbered as shown on the completed plan.

The lots were then posted by chaining from the intersection of the above mentioned street lines, noting the chainage in width and length of all lots posted. The back lines of the lot were then run and posted as shown on the plan and field notes. The fronts of broken lots along Water Street, River Street east, and River Street west, were then run and posted.

The posts along the street lines were all marked with a scribe or scrib-
ing iron showing the adjoining lot numbers and "R" on the side facing the
street. Iron posts (tubes), one and one-fourth inches in diameter, and three
feet long, forged at the top, and painted red, were similarly marked with a
cold chisel and planted at the following points. At the northerly angle of
lot "A" at the northeasterly and southeasterly angles of lot eight, at the
southwesterly angle of lot one, at the northeasterly angle of lot sixteen, at
the southeasterly angle of lot seventeen, at the southwesterly angle of lot
thirty-four, at the southeasterly angle of lot forty-two, at the southeasterly
angle of lot forty-eight, at the southwesterly angle of lot sixty-six, at the
southeasterly angle of lot seventy-two, at the southeasterly angle of lot
seventy-six, at the southerly angle of lot eighty-one, at the northwesterly
and southwesterly angles of lot eighty-three, at the northeasterly and south-
easterly engles of lot eighty-five, at the northeasterly angle of lot ninety-
six, at the easterly angle of lot ninety-eight, at the westerly angle of lot
ninety-nine at the southwesterly angle of lot ninety-three, at the northwesterly
angle of lot one hundred and twenty-one, at the north and easterly angle
of lot one hundred and thirteen, at the southwesterly angle of lot one hun-
dred and thirty, at the southwesterly angle of lot one hundred and forty-
one, and at the southeasterly angle of lot one hundred and fifty.

The wooden posts were all made of good cedar except a few which were pine, and were all from two to three inches square and two feet in length.

They were all driven into the ground, leaving about ten inches above the surface.

The lines were all well cut out and blazed.

The survey which was connected to the westerly limit of the lot by retracing and chaining the said westerly limit from the southerly shore of Elk Lake, southerly to its intersection with the northerly shore of Bear River, and running and chaining a line to it from the southwesterly angle of lot sixty-five as shown on the completed plan and field notes.

The chainages of the intersection of my lines with the easterly limit of the lot are noted in the field notes and on the plan. I endeavoured to observe from Azimuth but was unable to on account of the cloudy weather. The astronomic bearings were obtained from an observation taken in October, 1907, by J. H. Shaw, Ontario Land Surveyor, on the line between lots five and six, concession four, on the north side of Elk Lake.

The part west of Bear River is well timbered with spruce, poplar, birch, pine and a few cedar. The part on the east side of Bear River is timbered similarly but it was mostly burnt over last year.

The land is fairly high and level and good drainage could be obtained from all parts of it. There is practically no low land in the whole town plot.

Accompanying this report are two general plans and field notes of the entire survey.

I have the honour to be,

Sir,

Your obedient servant,

(Sgd.) JAMES H. SMITH,

Ontario Land Surveyor.

The Honourable,

The Minister of Lands, Forests and Mines.

Toronto.

(Appendix No. 48.)

TOWNSHIP OF REDDITT, DISTRICT OF RAINY RIVER.

KENORA, 18th April, 1907.

SIR,—I have the honor to report that in accordance with your instructions, dated the sixth day of July, 1906, I have completed the survey and subdivision of the township of Redditt, in the District of Rainy River.

Leaving the town of Kenora, on the 10th day of August, 1906, I proceeded by wagon over the Melick and Jaffray road north to the Black Sturgeon Lake, thence by canoes easterly across the Lake to the mouth of Rice Creek following up this creek in a northeasterly direction and making two small portages, we arrived at Deacon Lake and made our first camp.

I commenced my survey at the southeast corner of the township, taking for my startng point the iron and wooden posts planted by O.L.S Deacon in the east boundary of Melick, near the shore of Deacon Lake, the northeast corner of Melick being in the water of Deacon Lake. After taking an observation, I ran the east boundary north astronomically to the fourth concession, I then opened up the north boundary of Melick, which is also

the south boundary of Redditt, and planted posts forty chains apart as far as lot thirteen of Melick, making careful notes of difference in chaining, if any, with that of Deacon's survey which is shown in field notes. I then ran the north and south lines between lots two and three, four and five, etc., and the west boundary north astronomically, taking observations as often as the weather permitted and correcting my bearings whenever any appreciable error was discovered; the details of these observations are entered in the field notes. The magnetic variation averaged about eight degrees, thirty minutes east, but varied between six degrees and ten degrees east, probably caused by decomposed iron pyrites in the granite.

I planted posts on the fronts of concessions and on the north boundary where these were intersected by the east and west boundaries and by the side lines between two and three, four and five, six and seven, etc., and also on the fronts of concessions at the corners between lots one and two, three and four, five and six, etc. These lots are marked with the number of the lots, and concessions which they are intended to govern, that is on the east and west side with the numbers of the adjoining lots and on the north side with the number of the concession of which they mark the front. The posts on the east and west boundaries, and on the lines between lots two and three, four and five, six and seven, etc., were marked on the south side also with the number of the concessions of which they mark the rear.

At the southeast, northeast, northwest and southwest corners of the township I planted, in addition to the wooden post, iron posts one and seven-eighths inches in diameter, that near the southeast corner being placed at the intersection of the north shore of Deacon Lake with the east boundary, the name of the township "Redditt" was cut on the side facing inwards in addition to the numbers of the lots and concessions with a cold chisel, also an iron post one and one-quarter inches in diameter in the centre of the township at the intersection of line between concessions three and four, and side lines between lots six and seven, and also on the south boundary between lots six and seven, and on the east boundary between concessions three and four, on the north boundary between lots six and seven and on the west boundary between concessions three and four. The general surface of the township is of a rolling rocky nature, with a few valleys running through it of good arable land showing a good growth of alders, willows and wild hay with scattered tamarac, suitable for wood and ties, and in some places the tamarac is long, large and straight and would make good piles; the first concession adjoining Melick is well timbered, with the exception of lots one, two and three, with mixed timber, jack pine, tamarac, spruce, balsam, poplar and white birch, and an odd red pine here and there.

The eastern portion of the township is practically all rocky rolling country, covered with a second growth of jack pine, poplar, and birch, with the exception of a patch around the intersection of the line between concessions three and four and the eastern boundary, which has missed the fire of ten or twelve years ago, and contains a few thousand ties and timber suitable for cordwood. There is no red or white pine to speak off, except a small grove of red pine on the eastern shore of Norway Lake on the north boundary, which contains approximately two hundred thousand feet, the trees running from nine to sixteen inches in diameter.

The western portion, and especially the northwestern, contains some good patches of land, well watered by lakes and streams, the soil being a rich dark clay loam with a clay subsoil which in patches is mixed with sand or sandy loam; there is excellent pasture all through this portion, the low

land being covered with wild hay and the high with a thick growth of wild pea vine that all stock thrive upon and prefer to any grass. There are a number of small lakes all through the township as the map shows, there being over thirty in all. Corn, Talbot and Kramer being the largest, in many of the lakes, especially Talbot, the water is very clear and pure, and no doubt pickerel, pike, and white fish will be found in them. Talbot and Beach Lakes have some lovely sand beaches, and are well suited for summer resort purposes.

Indications of moose, cariboo and red deer are abundant. This township lying between the valleys of the Black Sturgeon, and Black or McFarlane River (which is composed of a chain of lakes and connection streams), commencing at the Winnipeg River, and joined by a river which is navigable for canoes in high water with a few short portages to Bluff Lake, being the next lake northeasterly from Grindstone Lake, the water sheds both ways to the south into Black Sturgeon Lake, and to the north into the McFarlane River, through the valley of which the Transcontinental Railway runs, winding its way around the lakes to keep in the low-land of this valley.

The right of way is now all cut out through here and rock work and grading is being pushed as fast as possible.

The principal route of transportation to this part of the Transcontinental from Kenora and Keewatin is via the Winnipeg River in summer, and via the Melick and Jaffray Colonization Road to all that part of the Transcontinental through Redditt and two miles west of Redditt, to the crossing of the Winnipeg River, and all contiguous parts east and west is from Keewatin across locations S. 406, Middle Lake S. 407, S. 408 and lot 5 in the fourth, fifth, and sixth concessions in Pellatt via Skiff Lake to Locke Bay, Winnipeg River, across the bay and thence to the crossing, and as a divisional point will probably be located in Redditt, the Colonization Road and its extension north to the Transcontinental will be of special importance as a connecting link and as a means of opening up all the arable land for colonization, already two squatters are located in the northwest part, close to the railway, namely, Adam Blondin on the south half of lot twelve, in the sixth concession, Paul Lavoie on the north half of lot twelve, in the fifth concession, and others are enquiring regarding the requirements and terms of settlement. The two settlers mentioned have each a small cabin built, and a couple of acres brushed and partly chopped round their cabins. On the north side of Corn Lake, in the sixth concession, while there are some large ranges of rock, there are several hundred acres of good land, and as it slopes to the south, the soil is warm and loose and should grow almost any kind of crop, and the new railway will furnish an excellent market. While the winters are long, the snow is seldom over two feet deep, this being an exceptional winter. From my observations and knowledge of the township of Melick, adjoining, which will practically be the same, the settlers are raising all kinds of vegetables, hay, oats, fall wheat, etc., successfully, and with the advent of competition of the new railway and a little more permanent road-making, every foot of arable land will be taken up in the near future.

I found no mineral of economical value, the rock over the whole township being granatiid gneiss.

The western portion of the township will average about fifty per cent. of good land, while the eastern portion will not exceed twenty five per cent. About the middle of the work, I was taken ill with congestion and had to quit work for two weeks, and about the 1st of November, I was attacked by

la grippe which delayed the work until I could not use canoes, nor walk on the ice, so I waited to traverse the lakes until the ice was well formed, and thick; some fairly good roads might be made by following the valleys; straight roads cannot be got.

I have the honor to be,

Sir,

Your obedient servant,

(Sgd.) EDMUND SEAGER,

Ontario Land Surveyor.

The Honorable,
The Minister of Lands, Forests and Mines,
Toronto.

(*Appendix No. 49.*)

MORPETH P.O., January 11th, 1908.

To the Honourable the Minister of Lands, Forests and Mines.

SIR,—I have the honour to submit this my report, for the year 1908, as Ranger and Caretaker of the Rondeau Provincial Park.

There has been considerable work done on the Park this season, the chief of which was the building of the new stone crib dock, the repairing of the government road leading into the park, and the construction in part of a fine base-ball diamond. The work of levelling the ground for the diamond was begun rather late in the season, and the frost set in and prevented completion of the levelling until the ground thaws out again, then it is intended to cover the diamond with clay to a depth of 3 to 5 inches. A good base-ball ground will be a great acquisition to the park, as there are a number of good games played here during the season. The stone cribs and other timber portions of the new dock were about completed, but on account of the contractors, Messrs Blight & Fielder, not being able to make satisfactory arrangements to secure a dredge, the balance of the work was left undone but will be completed in the spring of 1908. I hope further use will be made of the dredge when here in cleaning out the unsightly rushes and weeds along the shore of the Park directly in front of the pavilion, the new refectory and the summer cottages.

I would again draw attention to the great lack of accommodation for the visiting public. Some definite steps should be taken at once to have a public house of some description built—club-house, hotel, boarding-house or some good respectable building that will accommodate from two to four hundred guests. The government road leading to the Park was repaired this fall and is being kept in excellent condition. To make one of the most beautiful drives in the Province and one which would also assist very materially in looking after and protecting the interests of the Park, this road should continue through the Park forest to the southern end and connect with the old lake shore drive-road at the bar. An estimate was forwarded to the Department recently showing the cost of enclosing 15 to 20 acres more of the bush land for the deer in captivity. All the shrubbery, weeds, etc., in fact everything but the natural grass (the red tops) and the trees, is killed in the old enclosure (14 acres) by the deer continually browsing them down. By picking up and burning the debris on the 14 acres, it would make a great addition to the picnic grounds, and the deer would be greatly benefitted by the green bushes and undergrowth in the new enclosure.

According to instructions from the Department, notice was given to the public that they would be allowed to take small pine poles, from three to five inches in diameter, from the Park forest for such purposes as curing tobacco, etc. I directed small trees to be taken only from where they were growing the thickest, using a thinning process, which leaves the bush in a better state of preservation. Some 797 poles were taken by 18 farmers at 10 cents per pole, amounting to \$70.70. They were allowed to take these poles during April and May. This privilege was very much appreciated. I was also instructed to allow a few poor families to take firewood from the tops of the trees that were cut and taken for timber for the new dock, and they were very thankful for the privilege. We are looking forward to having the new dock, base-ball grounds and other improvements completed and in good condition before the picnic season begins in 1908. The deer, game and fancy birds are looking fine and are in excellent condition. The attendance at the Park is increasing each year, and if the electric railway reaches here, as we expect it will in a short time, the number of visitors will increase more rapidly, hence the necessity for more and better accommodation.

I have the honour to be, Sir,

Your obedient servant,

ISAAC GARDINER.

APPENDIX No. 50.

ALGONQUIN PARK, January 15th, 1908.

To the Honourable the Minister of Lands, Forests and Mines:

HONOURABLE SIR,—I beg to hand you a report on the Algonquin National Park for 1907. Our staff has consisted of fourteen men as follows: Superintendent, Chief Ranger and twelve rangers. These men have been in charge of seven sections, which they are supposed to patrol—two on each—and I feel confident they have done so to the best of their ability. There has, no doubt, been some poaching, it being utterly impossible for the number of men employed to travel as they should the area that necessarily falls to every two men. It would require, at least, a man to each township. I hope you will see your way clear to considerably increase the staff so that it may be impossible for poachers, with safety, to attempt trapping within the Park.

We have done a great deal of work during the past year in cleaning out portages, building and repairing shelter houses. Six new shelter houses have been built as follows: One on Tea lake, one on Maple lake, one on Nipissing, one on Otter slide, one at Opeongo and one at Oram's. These are all good buildings with cedar foundations, hewn logs and good floors, roofs, windows, etc. They are built 14 x 16 feet, or 16 x 18, inside.

We have had a great number of visitors in the Park during the past year, and I am pleased to be able to say there has not been a single complaint of any kind, the Park regulations having been strictly observed. The game in the Park is very noticeably on the increase, beaver and otter especially. These are in evidence wherever you turn. The deer are here simply in thousands, and can be seen in numbers wherever you go. They are becoming so tame, owing to the sense of security, that they scarcely move when you approach them.

Wolves, I regret to say, are also very much on the increase, and can be heard at night from headquarters howling all around. This I attribute largely to the increase of the deer in the Park, which, of course, is an inducement for the wolf to seek the same section. Every effort should be made to rid the woods of this pest that annually destroys more deer than the sportsman's rifle. This is putting it at a very low figure.

Fishing has been exceedingly good in the Park during the past year, and there is no reason to fear that the fish are on the decrease. Some large salmon trout have been caught, the largest measuring 37 inches and weighing 20 pounds.

Lumbering in the Park is being carried on very extensively, and a great number of men are employed in the woods. I feel that the staff have had the co-operation of the limit-holders to a greater extent each year, the lumbermen's instructions to each and every foreman being at once to discharge any man found breaking the law. Fires, I am glad to report, have done very little damage in the Park during the past year.

I would respectfully submit for your consideration the advisability of having the eastern boundary surveyed by a Provincial Land Surveyor and properly cut out. This has not been done since the new section has been added to the Park, and it is impossible for hunters to tell when they cross the line.

I am, Sir,

Yours respectfully,

G. W. BARTLETT.

Appendix No. 51.

List of persons holding Cullers' Licenses, issued under the Ontario Cullers Act, up to 31st December, 1907.

Name.	P. O. Address.	Name.	P. O. Address.
Anderson, M. M.	Almonte.	Baulke, George R.	Aylmer, Que.
Allan, James D.	Bracebridge.	Bouchey, Arthur	Massey.
Appleton, Erwin B.	Bracebridge.	Buchanan, Mark	Trout Mills.
Albert, Andrew.	Ottawa.	Barrett, W. J.	Thessalon.
Adams, J. Q.	Longford Mills.	Bromley, Thomas	Pembroke.
Anderson, Patrick J.	Campbellford.	Bremner, John L.	Admaston.
Anderson, J. C.	Gravenhurst.	Breen, Bernard	Garden River.
Allan, Alfred	Ottawa.	Buie, Dougal	Providence Bay.
Allen, R. A.	Bannockburn.	Baker, Thomas	Blind River.
Aikens, Geo. M.	French River.	Blais, Felix	Hull, Que.
Appleby, Ridley	Katrine.	Baldson, George	Keewatin.
Adams, James M.	Sault Ste. Marie.	Bromley, W. H.	Pembroke.
Aylward, James	Peterborough.	Bowers, Isaac	Little Current.
Archibald, John L.	Keewatin.	Brown, Thomas	Barrie.
Austin, Wm. G.	Renfrew.	Bass, Walter R.	W. Huntingdon.
Anderson, Charles	Little Current.	Bates, Robert.	Kenora.
Anderson, John.	Cartier.	Binnie, Thomas	Port Arthur.
Adair, Thomas Albert	Gananoque.	Blair, William	Keewatin.
Anderson, J. G.	Alpena, Mich.	Bick, Thomas	Bobcaygeon.
Alexander, Samuel	Arden.	Burke, John Thomas	Midland.
Adams, Wm.	Westmeath.	Buchan, Sterling	L'Orignal.
Arkle, George.	Kenora.	Brown, Joseph A.	Spanish.
Armstrong, Jas. Theodore	McKellar.	Baird, P. C.	Rainy River.
Armstrong, Thos. J.	Arnprior.	Brill, J. W.	Mine Centre.
Acheson, Ira M.	Westmeath.	Beattie, Arthur W.	Arnprior.
Albert, Alfred E.	Ottawa.	Brock, H. S.	Ottawa.
Alma, John E.	Hawkesbury.	Benson, John Bird.	Midland.
Adams, George A.	Longford.	Brennan, Richard Lawrence	Peterborough.
Ansley, John Albert.	Thessalon.	Brown, Hugh Risside	Huntsville.
Ansley, John Jenkins	Thessalon.	Bryan Frank	Keewatin.
Ainslie, Alexander.	Spanish.	Bennett, Edward Clinton	Ahmic Harbor.
Apleton, E. A.	Kenora.	Blaine, Harvie Thomas	Orillia.
Arnill, William.	Iron Bridge.	Borrett, Thomas	Barrie.
Brophy, Michael Patrick	Massey Station.	Bickell, James Manuel	Sault Ste. Marie.
Boland, Abraham	Cartier.	Buisson, William	Sudbury.
Brown, Singleton	Bracebridge.	Borrett, James A.	Sault Ste. Marie.
Barry, Thomas James	Hastings.	Bliss, C. Lidden	Sudbury.
Blanchet, Paul Frederick	Ottawa.	Bray, James	Kinmount.
Bird, W. S.	Parry Sound.	Bremner, Geo.	Arnprior.
Bayley, James T.	Gravenhurst.	Bromley, Samuel	Pembroke.
Bell, Henry.	Ottawa.	Brown, A. C.	Fitzroy Harbor.
Beach, Herbert Mahlom	Ottawa.	Berlinquet, Julius	Opimicon, Que.
Barry, Thomas	Millbridge.	Blastora, Fred. L.	Harwood.
Beatty, W. R.	Parry Sound.	Burns, Clifton H.	Little Current.
Brooks, Frederick William	Mackay's Station	Beaumont, Ernest	Parry Sound.
Brown, Robert D.	Port Sidney.	Beattie, Alex.	Whitney.
Breed, Arthur G.	Penetang'ishene.	Brennan, Reginald	Gravenhurst.
Barnes, Thomas George Lee	Muskoka Mills.	Boyd, Geo.	Gravenhurst.
Buchanan, Robert	Coldwater.	Bissell, Geo. Thomas	Trenton.
Beck, Jacob Frederick	Penetang'ishene.	Baxter, Richard	Deseronto.
Bird, Joseph Manly	Muskoka Mills.	Breeaugh, Edward	Deseronto.
Boyd, John F.	Thessalon.	Boyd, Geo. A.	Thessalon.
Brandin, Martin W.	Peterborough.	Buchan, Frederick	Arnprior.
Bell, John C.	Peterborough.	Barrett, Patrick	Arnprior.
Bartlett, George W.	Warren.	Brundage, Alfred W.	Pembroke.
Brown, Silas.	Klock's Mills.	Brougham, Thomas	Eganville.
Boland, W. G.	Eganville.	Blair, Robert I.	Arnprior.
		Benson, John W.	Sturgeon Bay.

Appendix No. 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
Beck, Chas. M., Jr.	Penetanguishene	Corigan, Robt. T.	Emo.
Beatty, W. J.	Coldwater.	Cameron, John H.	Kenora.
Burns, C. W., Jr.	South River.	Carson, Melvin	Little Current.
Bell, John Henry	Burk's Falls.	Cameron, John K.	Spanish River.
Berry, Harold	Labelle, Q.	Cassidy, William	Little Current.
Black, George	Barwick.	Coons, Geo. Washington	Peterboro.
Bettes, John Hiram	Muskoka Mills.	Chisholm, Geo. Leopold	Sault Ste. Marie.
Brady, John	Renfrew.	Clark, Wm. J.	Birkdale.
Brown, James	Buckingham, Q.	Carr, Herbert E.	North Bay.
Brooks, W. J.	Blind River.	Cochrane, Alfred L.	Muldoon, Que.
Bertrand, Allan	Nairn Centre.	Campbell, George	Fort Frances.
Brinkman, Alex. B.	Sault Ste. Marie.	Chalmers, George James	Peterboro.
Black, Jacob	Barwick.	Caverly, David Charles	Parry Sound.
Beattie, W. J.	Arnprior.	Campbell, Archibald J.	Little Current.
Bromley, William	Westmeath.	Close, John L.	Arnprior.
Bissell, Harlie	Trenton.	Carmichael, Donald	Arnprior.
Brown, Robert	Starrat.	Carty, John	Arnprior.
Beaton, Hugh	Waubaushene.	Cleary, Patrick M.	Arnprior.
Bailey, Arthur	Parry Sound.	Caldwell, Jas. M.	Callander.
Burd, James Henry	Parry Sound.	Cushing, John J.	Davidson, Que.
Bailey, Samuel James	Orillia.	Crebo, William	Thessalon.
Burton, Tinswood	Renfrew.	Cullen, Michael J.	Massey Station.
Boyes, James	Huntsville.	Cuthbertson, William	Arnprior.
Brown, John	Rockdale.	Carss, Percy	Thessalon.
Brennan, Edward Scott	Sundridge.	Coghlan, Michael	Chapeau, Que.
Bell, John Arguey	Klock's Mills.	Cameron, Alexander Gordon	Beauchene, Que.
Bromley, Edw. H.	Pembroke.	Cassaday, W. W.	Emo.
Bliss, Lawrence E.	Byng Inlet.	Carter, Robert E.	Fesserton.
Bucee, Neil	Spanish Station.	Coleman, Jos.	Baysville.
Brazziel, Leonard	Spanish Station.	Cardiff, George McDougall	Galette.
Bowie, James	Bryson, Que.	Cameron, W. D.	Arnprior.
Barrie, Nicholas J.	Ottawa.	Crandall, F.	Port Arthur.
Burke, J. D.	Kenora.	Campbell, James R.	Eganville.
Bowen, Thomas	Deseronto.	Campbell, John A.	Midland.
Brown, James F.	Baysville.	Caillier, Hyacinth	Gravenhurst.
Blastorah, Bernard	Harwood.	Chamberlain, Thomas	Chamberlain.
Campbell, Robert John	Flinton.	Cooper, David Allan	Bobcaygeon.
Carpenter, John A.	Arnprior.	Cox, Henry	Millbrook.
Campbell, Alex. J.	Trenton.	Currie, James	Ballerica, Que.
Carson, James	Bracebridge.	Clarkson, A. E.	Ottawa.
Campbell, J. M.	Bracebridge.	Clairmont, E.	Midland.
Campbell, Robert	Bracebridge.	Cameron, W. F.	Gravenhurst.
Clairmont, Joseph	Campbellford.	Connolly, David	Sturgeon Bay.
Clarkson, Robert J.	Parry Sound.	Campbell, P. C.	Gravenhurst.
Carruthers, Aaron	Hintonburg.	Cadenhead, Alexander	Sault Ste. Marie.
Calder, Wm. J.	Burk Lake.	Carpenter, R. J.	Midland.
Chew, Joseph	Gravenhurst.	Christie, William Pringle	Arnprior.
Cole, James Colin	Ottawa.	Campbell, C. V.	Severn Bridge.
Cameron, Wm.	Collin's Inlet.	Clegg, Samuel	Sault Ste. Marie.
Cain, Robert	Midland.	Clairmont, William L.	Peterboro.
Crawford, Stephen W.	Thessalon.	Cook, Sidney P. W.	Gravenhurst.
Cochrane, George	Peterboro.	Corrigan, John	Spanish Station.
Coburn, John	Lindsay.	Chalmers, Alexander M.	Baysville.
Crowe, Nathaniel	Bobcaygeon.	Charlton, George A.	Peterboro.
Cameron, Alexander	Norman.	Cahill, Thomas	Collingwood.
Chrysler, Frank R. L.	Webbwood.	Chew, Manley	Nosbonsing.
Callaghan, Thos., Jr.	Campbellford.	Cooper, James Eddy	Midland.
Carson, Hugh	Kenora.	Cook, Reinhardt	Saurin.
Calder, George	Woodville.	Crowe, Cecil	South River.
Callaghan, Dennis	Campbellford.	Callaghan, Dennis	Bobcaygeon.

Appendix No. 51.—Continued.

Name.	P.O. Address	Name	P.O. Address
Campbell, Daniel N.....	Bückingh'm, Que	Doris, Patrick.....	Peterborough.
Canniff, R. W.....	Kenora.	Doris, John.....	Peterborough.
Cassidy, S. C.....	Dunchurch.	Donahoe, Michael.....	Erinsville.
Charleson, John Baptiste.....	Ottawa.	Doran, W.....	Belleville.
Comer, Billa F.....	Tweed.	Dickson, Robert R.....	Kippewa, Que.
Carter, George.....	Sundridge.	Donlevy, Wm. C.....	Rockcliffe.
Corrigan, Robt. T.....	Emo.	Duff, Chas. A.....	Stewartville.
Caswell, Grant.....	Coldwater.	Dean, James C.....	Kenora.
Caswell, Geo.....	Coldwater.	Duff, Peter A.....	Claybank.
Chemir, David A.....	Pembroke.	Duncan, Downey.....	Rainy River.
Clairmont, Philadelph L.....	Gravenhurst.	Dougherty, J. M.....	Fort Frances.
Crowe, Edgerton.....	Bobcaygeon.	Dunn, John F.....	Spanish Mills.
Castonquay, A. C.....	Chelmsford.	Dyke, Morris F.....	Blind River.
Clark, Donald Allan.....	Port Arthur.	Devitt, Frank.....	Dinorwic.
Charette, Herbert.....	Devlin.	Dickie, David.....	Port Arthur.
Christie, Uriah W.....	Fort Frances.	Enlaw, Oliver.....	Campbellford.
Clark, Joseph C.....	Fort Frances.	Ebert, Andrew P.....	Pembroke.
Crowe, Leslie.....	Bobcaygeon.	Ellis, Alexander.....	Arnprior.
Campbell, Duncan W.....	Stewartville.	Ellis, John.....	Westmeath.
Callahan, Thomas N.....	Arnprior.	Errington, Joseph.....	Sundridge.
Clements, Albert James.....	Bent River.	Eddington, Henry John.....	Parry Sound.
Carney, Albert.....	Sault Ste. Marie.	Enright, Daniel.....	Port Arthur.
Collins, Arthur.....	Massey Station.	Eager, James.....	Parry Sound.
Carter, George.....	Lavallee, Que.	Elliott, Porter P.....	Mine Centre.
Chitty, Alfred E.....	Kenora.	Elliott, William.....	Cache Bay.
Didier, Hector.....	Mattawa.	Edgar, J. E.....	Rat Portage.
Doran, Frank.....	Barryvale.	Elliott, George E.....	Peterborough.
Dunning, E. Percival.....	Parry Sound.	Fraser, John A.....	Kenora.
Duff, R. J.....	Arnprior.	Ferguson, Wm. H.....	Red Bay.
Durrill, John W.....	Ottawa.	Forbes, Christopher McKay.....	McLean's Depot.
Dickson, John.....	Sundridge.	Fitzgerald, E. Clair.....	Parry Sound.
Dickson, Jas. L.....	Michipi'ten H'r	Farrell, W. H.....	Ironside, Que.
Dobie, Harry.....	Sault Ste. Marie.	French, Lewis William.....	Byng Inlet.
Deacon, Charles.....	Sault Ste. Marie.	Fraser, William A.....	Mattawa.
Danter, R. W.....	Parry Sound.	Finnerty, Patrick.....	Rochfort.
Doyle, T. J.....	Eau Clair.	Farnand, Frank.....	Diamond.
Dobie, Alexander R.....	Blind River.	Fulton, Philip S.....	Spanish Station.
Darling, J. M.....	Wisawasa.	Fitzgerald, Ulyot C.....	Parry Sound.
Dillon, John.....	Calabogie.	Fenn, George.....	Bracebridge.
Durrell, Jos. Nelson.....	P'r'tge du F'rt, Q	Fortune, Owen.....	Trenton.
Durrell, John.....	Callander.	Fraser, David.....	Norman.
Donally, Richard S.....	Sunbury.	France, John.....	Collin's Inlet.
Devine William.....	Cook's Mills.	Ferguson, Ernest A.....	Baysville.
Durrill, William.....	Nosbonsing.	Ferguson, Alpheu.....	Mattawa.
Draper, Patrick.....	Quyon, Que.	Ford, John William B.....	P'r'tge du F'rt, Q
Davis, J. P.....	Bobcaygeon.	Ford, Charles.....	Wahnipitae.
Dale, John Alexander.....	Birkendale.	Findlay, J. H.....	Braeside.
Dinsmore, Chas. L.....	Huntsville.	Fraser, James.....	Renfrew.
Drum, Patrick.....	Belleville.	Fairen, Francis.....	Peterborough.
Durham, Edgar S.....	Rosseau.	Faulkner, Jos.....	Fesserton.
Duquette, Chas.....	Webbwood.	Fraser, Alexander, Jr.....	Westmeath.
Davis, William Albert.....	Bobcaygeon	Fairbairn, William.....	Calabogie.
Dickson, Robert Alexander.....	Keene.	Fraser, Wm. A.....	Pembroke.
Dawkins, John.....	Gravenhurst.	Fraser, Foster.....	Pembroke.
Doxsee, James E.....	Gravenhurst.	Fraser, Wm.....	Little Current.
Didier, L. P.....	Aylmer, Que.	Fraser, Hugh Alexander.....	Pembroke.
Devine, Patrick J.....	Sheenboro, Que.	Flaherty, John.....	Lindsay.
Dinsmore, Richard.....	Huntsville.	Fisher, Wm.....	Trenton.
Dunn, Percy E.....	Longford Mills.	Fox, Thomas.....	Deseronto.
Duval Chas.....	Halfway.	Fallis, James W.....	Sturgeon Bay.
Donlevy, James.....	Calabogie.		

Appendix No. 51.—Continued.

Name	P. O. Address	Name	P. O. Address.
Fairbairn, N. H.	Webbwood.	German, Maurice J.	Fenelon Falls.
Friel, John	Trenton.	Gillies, John A.	Braeside.
Fox, Charles	Trenton.	Goddin, Edward.	Griffith.
Featherstonhaugh, Wm. H' y	Penetanguishene	Grant, Joseph.	Eganville.
Friar, Schuyler	Westmeath.	Gilmour, James B.	Braeside.
Farren, Joel	Savanne.	Gorman, Joseph P.	Sault Ste. Marie.
Fraser, Duncan	Big Forks.	Gordon, Thomas A.	Hall's Bridge.
Freestone, Walter	Burk's Falls.	Gray, Albert H.	Biscotasing.
Fraser, John	Bancroft.	Gadway, John.	Parry Sound.
Fitzgerald, D. C.	Spanish Station.	Garrow, Edward.	Webbwood.
Foster, Wm. C.	Searchmont.	Golding, William.	Dorset.
Frazer, Jas. C.	Spanish Mills.	Gillies, Harry.	White Lake.
Fremlin, H. P.	Richards Land'g.	Gordon, Herbert C.	Nelson.
Foster Ed. G.	Sault Ste. Marie.	Gillespie, M. H.	Cook's Mills.
Farrel, Peter M.	Whitefish.	Griffin, William.	Huntsville.
Fairhall, Edward.	Whiteside.	Ganton, David.	Trout Creek.
Fraser, Levi.	Bracebridge.	Graham, George L.	Arnprior.
Fiddes, James.	Rainy River.	Graham, Frederick S.	Arnprior.
Frawley, Frank.	Orillia.	Gill, Cuthbert.	Orillia.
Fisher, George	Sault Ste. Marie.	Graham, James Robert.	Kenora.
Filiatralt J. A.	Blind River.	Graham, Thomas Jordan.	Byng Inlet.
Farrier, John William.	Chapleau.	Gaudaur, Antoine Daniel.	Orillia.
Finney, Benjamin B.	Fort Frances.	Gorman, Patrick.	Eganville.
Griffith Geo. F.	Pembroke.	Guy, Charles.	Fort Frances.
Graham, John	Arnprior.	Graham, George H.	Gillies Depot.
Golden, Jno.	Gilmour.	Greer, George P.	Port Arthur.
Gunter, Henry M.	Trenton.	Gill, Charles.	Fort Frances.
Goltz, Ernest	Bardsville.	Hurd, Cyrus.	Parry Sound.
Green, Forman A.	Gilmour.	Henderson, Albert E.	Burford.
Green, Samuel E.	Parry Sound.	Hale, John B.	Sault Ste. Marie.
Grant, John	Flinton.	Hickerson, Melvin T.	Fort Frances.
Green, Arthur	Ottawa.	Howey, George H.	Fort Frances.
Green, Norman McL	Bancroft.	Hartt, James.	Gilmour.
Gillis, John J.	Whitefish.	Hayes, James.	Enterprise.
George R.	Parry Sound.	Humphrey, T. W.	Gravenhurst.
Gardiner, John	Parry Sound.	Hudson, A. H.	French River.
Golden, Frank J.	Trenton.	Handley, Robert.	Douglas.
Garson, Robert	Thessalon.	Howe, Alexander.	Queensborough.
Gropp, August.	Penetanguishene	Hurd, Edwin.	Hurdsville.
Grozelle, Antoine D.	Muskoka Mills.	Huff, J. S. Morris.	Arnprior.
Goulais, James	Peterborough.	Halliday, Robert J.	Lindsay.
Grayson, Charles	Keewatin.	Hutton, John.	Hutton House.
Gladstone, Harry E.	Cook's Mills.	Hutchinson, Wm. E.	Huntsville.
Guertin, Oliver.	Biscotasing.	Hogarth, Joseph Rowan.	Pembroke.
Gelinas, Frank.	Hull, Que.	Humphrey, John.	Gravenhurst.
Gwynne, John.	Hawkesbury.	Hill, Joshua.	Midland.
Gray, Frederick M.	Brule Lake.	Hall, David.	Lovering.
Graham, Edward G.	Wahnipitae.	Hartley, Charles.	Peterborough.
Griffin, James.	Spanish River.	Hawkins, Henry Charles.	Blind River.
Gordon, Alexander B.	Pembroke.	Hines, Philip Wallace.	Huntsville.
Gareau, Noah J.	Pen broke.	Hudson, John Lewis.	Combermere.
Gillies, D. A.	Carleton Place.	Hurdman, William H.	Ottawa.
Gilligan, Edward	Mattawa.	Hughes, John.	North Bay.
Gladman, Charles.	Parry Sound.	Howie, R. G.	New Liskeard.
Garrow, John D.	Ottawa.	Helferty, Dennis.	Eganville.
German, William Burton.	Wahnipitae.	Hamilton, Robert.	Kenora.
Gordon, Robert W.	Pembroke.	Hoppins, Abiram.	Kingston.
Guertin, Nelson.	Petawawa.	Hoppins, Densmore.	Kingston.
Gardener, John	Kenora.	Haystead, John.	Parry Sound.
Gunter, Peter M.	Gilmour.	Henderson, John Irwin.	Bobcaygeon.
Glennie, William.	Millbridge.	Hartley, William.	Millbridge.

Appendix No. 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
Higgins, John C.....	Peterborough.	Kennedy, Timothy.....	Enterprise.
Harrison, John, Jr.....	Pembroke.	Kirk, Henry.....	Trenton.
Hawkins, E.....	Le Breton Flats.	Knox, Milton.....	Ottawa.
Henderson, Charles.....	Bracebridge.	Kinsella, Michael Pierce.....	Trenton.
Haliday, Frank.....	Parry Sound.	Kitchen, D.....	French River.
Hammond, W.....	Orillia.	Kelly, Jeremiah.....	Sudbury.
Hall, Charles Asa.....	Penetanguishene	Kelly, Ferdinand.....	Mattawa.
Hearl, John.....	Callander.	Kennedy, T. J.....	Arnprior.
Howe, Isaac.....	Fort Frances.	Kenning, Henry.....	Pembroke.
Halliday, James.....	Springtown.	Kirby, D. F.....	Belleville.
Hurdman, J. A.....	Ottawa.	Kirkpatrick, David.....	Lindsay.
Hawkins, Stonewall J.....	Meldrum Bay.	Kean, John F.....	Orillia.
Hinchcliffe, William.....	Gunter.	Kellett, Fred.....	Keewatin.
Henderson, Arthur.....	Baysville.	Kelly, Michael J.....	Baysville.
Hillis, James M.....	Sutton West.	Kirk, William James.....	Webbwood.
Harris, William, Jr.....	Day Mills.	Kerr, E. G.....	Thessalon.
Hogg, W. J.....	North Bay.	King, Napoleon.....	Mattawa.
Hoxie, E. P.....	Katrine.	Kean, B. F.....	Orillia.
Hawkins, Walter.....	Pembroke.	Kemp, Orval Wesley.....	Trenton.
Howard, James.....	Eganville.	Kirk, Charles Barron.....	Queensborough.
Howard, William.....	Baysville.	Kingsland, W. P.....	Ottawa.
Hogan, Enos W.....	Savanne.	Kerr, John B.....	Arnprior.
Horne, John T.....	Fort William.	Kennedy, Walter.....	Arnprior.
Hamilton, Chas. E.....	Kenora.	Kennedy, John.....	Pembroke.
Henderson, Leonard.....	Baysville.	Knox, Wm. M.....	Fesserton.
Hunter, Thos.....	Callander.	Kingston, Robert.....	Wisawasa.
Hamilton, Robert J.....	Ottawa.	Kearnan, Edward.....	Blind River.
Hawkins, William A.....	Pembroke.	Kearney, Michael John.....	Buckingham, Qu.
Herring, Edward C.....	Sebright.	Kendrick, John.....	Burk's Falls.
Hatch, J. W.....	Dryden.	Kendrick, John L.....	Burk's Falls.
Hoard, Wm. Paris.....	Emo.	Kennedy, John W.....	Ottawa.
Irving, Thos. H.....	Parry Sound.	Kelly, James F.....	Treut Creek.
Irwin, Eli.....	Kenora.	Kauffman, Julius.....	Blind River,
Irving, Edward C.....	Kenora.	Kennedy, Sylvester.....	Brule Lake.
Johnston, Ralph E.....	Port Arthur.	Kernahan, George A.....	Barwick.
Johns, Frank A.....	Toronto.	Kehoe, Martin.....	Huntsville.
Jackson, Robert.....	Brechin.	Leannoth, Francis.....	Arnprior.
Johnson, Finlay.....	Bracebridge.	Lee, James.....	Warren.
Jones, Albert.....	Victoria Harbor.	Lloyd, Alfred.....	Severn Bridge.
Johnson, Thomas.....	Bobcaygeon.	Lawrie, Frank A.....	Parry Sound.
Johnston, Archibald M.....	Norman.	Latimer, Jas.....	Frank's Bay.
Julien, Charles.....	Trenton.	Lemyre, Middey.....	Campbellford.
Junkin, Henry.....	Marmora.	Lutz, Jacob.....	Parry Sound.
Johns, Frank.....	Nipissing Junct'n	Luby, John E.....	Ottawa.
Jessup, Edward D.....	Cache Bay.	Law, Wm. J.....	Markstay.
Johnson, Frank N.....	Ottawa.	Lummis, Daniel.....	Glanmire.
Johnston, John.....	Peninsular Lake.	Lowe, W. C.....	Port Arthur.
Johnson, S. M.....	Arnprior.	Londry, S. C.....	Sault Ste. Marie.
Jones, Frederick James.....	Flinton.	Lochnan, James.....	Ottawa.
Johnston, William A.....	Castleford.	Link, Henry W.....	Ottawa.
Jervis, Henry.....	Wisawasa.	Ladarotte, John.....	Arnprior.
Jones, William.....	Fenelon Falls.	Lochnan, John.....	Aylmer, Que.
James, Martin.....	The Flats.	Lozo, John.....	Trenton,
Johnston, James.....	Fort Frances.	Loughrin, Lawrence.....	Pembroke.
Johns, Alexander.....	Callander.	Linton, J. H.....	Parry Sound.
Jackson, John A.....	Barwick.	Ludgate, James.....	Peterborough.
Kintree, Stuart.....	Little Rapids.	Lee, Robert.....	Huntsville.
Kerby, John.....	Belleville.	Langford, Mark.....	Baysville.
Kennedy, Robert.....	Marmora.	Letherby, Edwin.....	Midland.
Kirby, Louis Russell.....	Ottawa.	Leahy, Francis M.....	Chapeau, Que.
		Langford, Henry.....	Baysville.
		Lessard, Philip.....	Kenora.

Appendix No 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
Lovering, William James	Coldwater.	Molyneaux, George	Parry Sound.
Lane, Maurice	Bobcaygeon.	Milway, Joseph	Fort William.
Lenton, George	Peterborough.	Mackie, Nathan	Port Arthur.
Lowe, Thos. A.	Renfrew.	Milne, Archie	Arnprior.
Livingston, Robert M.	Huntsville.	Murray, James	Peterborough.
Londry, William E.	Sault Ste. Marie.	Moore, James A. E.	Lakefield.
Labelle, James	Waltham, Que.	Merkley, William A.	Ottawa.
Labelle, Eli	Waltham, Que.	Murphy, Hugh R.	Ottawa East.
Ladurante, J. D.	Ottawa.	Murphy, W. J.	Arnprior.
Ludgate, Theodore	Peterborough.	Murray, William	Marketstay.
Lucas, Frank	Sault Ste. Marie.	Macfarlane, Robert L.	Warren.
Lunam, Duncan	Collfield, Que.	Martin, Fdgerton	Marketstay.
Lott, George	Trenton.	Mathieson, Archie	Fort Frances.
Lawrie, John D.	Parry Sound.	Moore, Henry R.	Lakefield.
Lovering, George Francis	Coldwater.	Mickle, Charles S.	Gravenhurst.
Lucas, R. G.	Christina.	Mullen, James	Webbwood.
LeBlanc, Edmund C. Chapleau	Chapleau.	Morley, A. W.	Winnipeg.
Lavigne, John	Aylmer, Que.	Macdonald, James M.	North Bay.
Landell, Charles S.	Huntsville.	Money, Harry	Haileybury.
Long, Henry Elisha	Mattawa.	Mather, Allan	Keewatin.
Lynch, W. H.	Collingwood.	Menzies, Alexander	Sault Ste. Marie.
Laplante, Francis	Byng Inlet.	Munroe, Peter P.	Commanda.
Lindsay, Jas.	Arnprior.	Mason Benjamin	Westmeath.
Labelle, Michael	Arnprior.	Monaghan, John B.	Arnprior.
Legree, John	Dacre.	Monaghan, M. J.	Arnprior.
Legree, James L.	Calabogie.	Mulvihill, John	Arnprior.
Leigh, John Chas.	Gravenhurst.	Moran, Andrew	Rockingham.
Lloyd, Edward B.	King.	Mulvihill, Michael	Arnprior.
Lemyre, Bruno	Gravenhurst.	Mann, John	Manitowaning.
Lavelle, Charles H.	Canoe Lake.	Marrigan, Richard	Deseronto.
Lyons, James	Waltham Sta., Q.	Monaghan, John Dorland	Deseronto.
Ledwood, Chas.	Ottawa.	Matheson, Wm.	Chelmsford.
Levelle, Emery	Waltham Sta., Q.	Munro, Alex. G.	Braeside.
Little, Theo	Kenora.	Murphy, Oliver A.	Marksville.
Lehman, Joseph	Stratton Station.	Mellor Charles	Port Arthur.
Lafare, Mark	Cache Bay.	Millions, Harry	Gillies Depot.
Leach, George	Vermilion Bay.	MacDonell, R. D.	Bisc-tasing.
Lott, Angus M.	Spanish Mills.	Milne, Fred	Trout Mills.
Malloy, Mark	Baysville.	Miller, P. H.	Blind River.
Martin, Hugh	Sault St. Marie.	Munro, Philip	Braeside.
Miller, R. O.	Gravenhurst.	Mangan, Patrick	Arnprior.
Morrison, James	Toronto.	Marcil, Peter	Ottawa.
Murray, Frederick	Huntsville.	Main, Samuel	Spanish Station.
Menzies, Archibald	Burk's Falls.	Morley, Charles	Huntsville.
Manning, James	Trenton.	Moore, David Henry	Peterborough.
Martin, Philip	Stoco.	Murphy, John	Arnprior.
Malone, Wm. Pat.	Ottawa.	Mathieson, Daniel	Chelmsford.
Marsh, Esli Terril	Trenton.	Milne, Wm.	Ethel.
Millar, John W.	Huntsville.	Mangan, Charles	Burk's Falls.
Mutchinbacker, Asa	Rosseau Falls.	Mooney, Lincoln	Orillia.
Morris, George F.	French Bay.	Mangan, John	Arnprior.
Murray, George Jr.	Waubaushene.	Mooney, Thomas	Kingston
Maughan, Joseph	Fort William.	Mason, Robt. T.	Rochesterville.
Margach, Wm. J.	Port Arthur.	Moore, Wm. John	Gravenhurst.
Murray, George Sr.	Waubaushene.	Morrison, Donald	Reay.
Maniee, Wm.	Peterborongh.	Moore, Wm.	Bobcaygeon.
Murray, Wm.	Kenora.	Mutchinbacker, Herman	Rosseau Falls.
Morgan, Richard, J.	Kenora.	Moore, Norman	Arnprior.
Magee, Thomas Arthur	Kenora.	Morley, John R.	Kenora.
Murdoch, James	Cook's Mills.	Mackay, J. A.	Big Forks.
Mulvahil, Wm.	Arnprior.	Miller, Robt.	Montreal.
Murphy, Arthur	Ottawa.	McCaw, Joseph E.	Tweed.
Mayhew, Jacob	Northcote.		

Appendix No. 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
McLaren, Peter	Kenora.	McDonald, James P.	French River.
McGregor, Colin F.	Kenora.	McFarlane, Jos. C.	Port Severn.
McKenzie, Robert	Kenora.	McNabb, Alexander	Thessalon.
McFadyen, A. J.	Bracebridge.	McGillivray, Archibald	Port Arthur.
McCaulay, Thos. J.	Goulais Bay.	McGrane, Edward	Lindsay.
McDonald, John C.	Spanish Mills.	McLeod, Donald, Jr.	Keewatin.
McKenzie, Alex. E.	Ansonia.	McDonald, Hector, R.	Thessalon.
McIntyre, John	Arnprior.	McDougall, Duncan	Bracebridge.
McDermott, Thos.	Orillia.	McNabb, Alexander D.	Warren.
McDermott, Jas. E.	North Bay.	McCormack, John C.	Sudbury.
McCindle, Jas.	Sudbury.	McNamara, John	Byng Inlet.
McGhie, Chas. S.	Whitestone	McGillivray, Duncan D.	Algoma Mills.
McGenigal, John H.	Whitby.	McIntyre, Daniel A.	Klock's Mills.
McCart, Patrick	Arnprior.	McNamara, Lewis	Klock's Mills.
McGrath, Thos. B.	Peterborough.	McDonald, Sydney C.	Mattawa.
McCormick, James J.	Trenton.	McGurn, Jno. J.	Buckingham, Que.
McCarthy, Wm.	Fenelon Falls.	McKeown; Jno. Joseph	Port Arthur.
McAvoy, Owen	Campbellford.	McNeel, David	Sault Ste. Marie.
McConnell, Lewis	Fesserton.	McEwan, Andrew	Thessalon.
McMullen, George	Sprague.	McCool, Christopher L.	Cartier.
McNab, Angus	Burnstown.	McCollum, Donald	Arnprior.
McColgan, C. H.	Quyon, Que.	McDowell, Wm.	Cache Bay.
McCallum, Webster	Arnprior.	McConnachie, Roy Stewart	Huntsville.
McCagherty, Robert E.	Westmeath.	McDonell, J. K.	Rat Portage.
McNab, Archie	Calabogie.	McDonald, Alex. J.	Vermilion Bay.
McDonald, Malcolm	Sprague.	McKay, D. A.	Rainy Bay.
McIvor, J. A.	Fort Frances.	McMillan, James	Kenora.
McCulloch, M.	Kenora.	McPhee, Ronald	Bracebridge.
McDonagh, Rod.	Callander.	McKay, George Donner	Dorset.
McManus, James	Arnprior.	McWilliams, Maxwell	
McKinley, J. H.	Curran.	Theodore	Peterborough.
McPherson, Jas. S.	Rama.	McLeod, John	Keewatin.
McKinley, Edward C.	Toronto.	McPherson, George	Keewatin.
McClelland, John.	Parry Sound.	McDougall, John D.	Kenora.
McFarlane, J. W.	Cache Bay.	McGregor, Duncan	Burnstown.
McDonald, Roderick	Pembroke.	McLean, Peter W.	Sand Point.
McCormack, Wm.	Pembroke.	McNichol, John	Sudbury.
McCreary, William	Arnprior.	McInnis, D. E.	Cache Bay.
McCuaig, James C.	Bryson.	McLaughlin, Samuel	Waubaushene.
McColman, Peter.	North Bay.	McCollman, John	North Bay.
McLeod, James D.	Gravenhurst.	McManus, John C.	Arnprior.
McCrimmon, N. K.	Blind River.	McLean, John	Blind River.
McCreary, James, Jr.	Arnprior.	McLeod, Norman	Garden River.
McPhee, Hugh	Byng Inlet.	McLean, James	Blind River.
McCudden, James	Arnprior.	McNally, J. H.	Desbars.
McLachlin, J. A.	Arnprior.	McNabb, Alexander	Arnprior.
Macpherson, John	Ottawa.	McFarlane, Alexander	Renfrew.
McEachren, John A.	Gravenhurst W.	McFarlane, J. D.	Stewartsville.
McLeod, Dugald	Gravenhurst.	McFarlane, Duncan	Renfrew.
McClelland, R. H.	Parry Sound.	McKendry, Wm. B.	Arnprior.
McEvoy, Frank	Campbellford.	McPhee, Hugh	Renfrew.
McDermott, Peter	Orillia.	McPhee, John	Arnprior.
McIlroy, John	Madoc.	McLachlin, Peter	Arnprior.
McNab, Robert J.	Parry Sound.	McLachlin, Alexander	Arnprior.
McFadden, James	Ottawa.	Mackey, Edward	Arnprior.
McIntosh, James G.	Carleton Place.	McEwan, Henry	Trenton.
McInnis, Hector D.	Bracebridge.	McDonald, Alfred	Peterborough.
McKinnon, Malcolm	Bracebridge.	McGeary, John J.	Sundridge.
McLean, Daniel	Bracebridge.	McDonald, Archibald W.	Gilmour.
McKinnon, Archie J.	Bracebridge.	McCaw, John Gillen	Queensborough.
McKay, D. C.	Baysville.	McCauley, Barney	Trenton.
McDonald, James	Parry Sound.	McDougall, James T.	Klock's Mills.
McPherson, Allan	Longford.	McInerly, Thomas	Quebec, Que.

Appendix No. 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
McBride, Archibald	Arnprior.	Newall, John H.	Parry Harbor.
McFarlane, Robert L.	Arnprior.	Nolan, John	Gravenhurst.
McGowan, Wm.	Parry Sound.	Newton, Charles W.	Victoria Harbor.
McLachlin, Norman	Arnprior.	Nent, Charles	Vermilion Bay.
McDonald, Laughlin	Pendleton.	Needham, John G.	Pakenham.
McIvor, William J.	Collins Inlet.	Oullette, Joseph P.	Cutler.
McKee, John P.	Sturgeon Falls.	O'Neil, Thomas	Bancroft.
McGowan, Thomas	Parry Sound.	O'Neill, Daniel H. H.	Arnprior.
McDermot, Patrick	South River.	O'Leary, Patrick J.	Orilia.
McKay, Angus	South River.	Oliver, Charles R.	Fesserton.
McDonald, A. J.	Longford.	Overend, George J.	Longford Mills.
McInnis, Angus D.	Gravenhurst.	O'Brien, Andrew	Ottawa.
McKendry, Alexander	Waubaushene.	O'Brien, Frank G.	Arnprior.
McGuire, Timothy	North Bay.	Oliver, J. A.	Fort William.
McGrath, John	Peterborough.	Owen, W. J.	Wabigoon.
McWilliams, John Bannon	Peterborough.	O'Connor, John	Hintonburg.
McCagherty, Patrick	Westmeath.	Oliver, Darcy	Wahnapiate.
McKendry, Daniel	Arnprior.	O'Connor, Wm.	Nosbonsing.
MacDonald, D. F.	Parry Sound.	O'Neill, James W.	North Bay.
McManus, Thomas J.	Renfrew.	O'Donnell, Wm.	Penetanguishene
Macfarlane, David R.	Ottawa.	Owens, Richard	Basin Depot.
McColgan, Edward	Quyon, Que.	O'Reilly, Patrick	Cartier.
McKay, John	Emo.	O'Neill, Mark	Renfrew.
McKinnon, William	Kenora.	Orrill, John	Trenton.
McKittrick, Frank R. F.	Kenora.	O'Neill, Patrick	Bancroft.
McMichael, Charles	North Seguin.	Orde, Francis W.	Kenora.
McIlroy, Thomas Davis	Madoc.	O'Driscoll, Joseph	Sault Ste. Marie.
McDonald, Wm. Henry	Trenton.	Pigott, John	Fitzroy Harbor.
McGaw, Wm. Thomas	Callander.	Paul, Charles A.	Sault Ste. Marie.
McMillan, L.	Callander.	Pattinson, Thos.	Bracebridge.
McDermott, John L.	Orillia.	Price, A. E.	Arnprior.
McDonald, Chas. M.	Pembroke.	Presley, J. F.	Ashton.
McPhee, Benjamin	Pembroke.	Power, James	Bobcaygeon.
McGee, John Edward	Parry Sound.	Patzel, Adolph	Arnprior.
Macfarlane, Mack	Arnprior.	Plaunt, William B.	Eganville.
MacCallum, Alexander	Braeside.	Plaunt, Joseph	Eganyile.
McRae, Farquhar	Kenora.	Porter, Charles C.	Longford.
MacCallum, Albert	Arnprior.	Preston, R. E.	Kenora.
McGonigal, John	Arnprior.	Petrié, George A.	Fergus.
McConachie, John	Huntsville.	Pomeroy, Peter	Trenton.
McKay, D. G.	Kenora.	Perry, Pringle K.	Byng Inlet, N'th Ottawa.
McDonald, James	Peterborough.	Purcall, W. G.	Parry Sound.
McCoolloch, John L.	Lonsdale.	Purvis, John	Uphill.
McConnell, James	Mine Centre.	Porter, James	Lindsay.
McIntyre, William John	Port Arthur.	Pearson, John James	Cache Bay.
McDonald, Allen	Big Forks.	Penney, Chas. G.	Hardwood Lake.
McLay, Albert	Devlin.	Pennock, James P.	Uxbridge.
McQuarrie, Daniel	Fort Frances.	Purdy, John A.	Blind River.
McNaughton, Daniel	Bracebridge.	Playfair, R. J.	Wahnapiate.
McCagherty, William E.	Westmeath.	Paterson, John	Orillia.
McDonald, John D.	Mattawa.	Paterson, Alexander	Gravenhurst.
McCagherty, Joseph T.	Westmeath.	Parke, James	Webbwood.
McAdam, Arch. H.	Quyon, Que.	Parquette, Oliver	Gravenhurst.
McMurphy, Dugald, Jr.	Kenora.	Palmateer, Sherman	Huntsville.
McCall, Alfred	Kenora.	Paget, George	Westmeath.
McRitchie, William	Kenora.	Pounder, Joseph	Arnprior.
McRitchie, Malcolm	Kenora.	Pell, Richard D.	Port Arthur.
Nescott, George	Kenora.	Perry, Frederick	Novar.
Newton, Frank	Gravenhurst.	Paget, Charles Edward	Dorset.
Newburn, Wm.	Parry Sound.	Porter, Thomas Robert Mark	Arnprior.
Niblett, James	Arnprior.	Ponntey, E. J.	
Niblett, Robert	Osceola.		

Appendix No. 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
Pyburn, David J.	Dorset.	Raycroft, William T.	Sarnia.
Purdy, Geo.	Hintonburg.	Roberts, Ivor M.	Garden River.
Playfair, Andrew Wm.	Sault Ste. Marie.	Revell, Lionel Oliver.	W. Gravenhurst.
Pipe, Taylor	Haileybury.	Regan, Judd Patrick	Orillia.
Pipher, George E.	Mowat.	Robins, Etna, Rosedale.	Orillia.
Pendee, David	Parry Sound.	Regan, John Jr.	Orillia.
Piper, A. J.	Blind River.	Ryan, James.	Savanne.
Quinn, William	Peterborough.	Rusk, Oscar W.	Cache Bay.
Quigley, Hugh	Penetang.	Robinson, Thos. Geo.	Bracebridge.
Quirk, Thomas J.	Petewawa.	Rooksby, Wm.	Campbellford.
Robertson, D.	Kenora.	Ramesbottom, Robt.	Byng Inlet.
Richardson, Frederick George	Trenton.	Roy, Lewis.	Arnprior.
Richards, Richard	Tamworth.	Riddell, Horace, A.	Galetta.
Riddell, Geo. Alexander	Rochesterville.	Rowan, A. L.	Sault Ste. Marie.
Robertson, Lewis McLean	Dunchurch.	Ritchie, James A.	Sprague.
Robinson, Wm. F.	Bobcaygeon.	Smith, M. D.	Fort William.
Reamsbottom, Wm	Mattawa.	Scanlan, William.	Enterprise.
Richey, Evan.	Brentwood.	Sutherland, D. H.	Gravenhurst.
Randall, Lewis G.	French River.	Spanner, John.	Huntsville.
Richardson, Charles Marvyn	Trenton.	Shier, James D.	Bracebridge.
Rochester, Daniel Baillie	Ottawa.	Spooner, W. R.	Katrine.
Riddell, James.	Ottawa.	Simpson, Alfred E.	Wakefield.
Rice, Asa A.	Hull, Que.	Souliere, John B.	Ottawa.
Roberts, T. A.	Huntsville.	Shields, James A.	Carleton Place.
Ross, Andrew	Longford Mills.	Spargo, George.	Ottawa.
Rose, Donald M.	Kenora.	Smyth, W. H.	Byng Inlet North
Rawson, Charles Edgar	Coldwater.	Salmon, R. H.	Baysville.
Ross, George	Waubaushene.	Salmon, Alexander C.	Baysville.
Roberts, Percy T.	Keewatin.	Stremer, A.	Ottawa.
Ritchie, Wm. D	Little Current.	Shields, Frank A.	Parry Sound.
Ramsay, Robert	Arnprior.	Stapleton, John J.	Ogidakie.
Ritchie, J. F.	Arnprior.	Sloan, William H.	Fort Frances.
Ritter, Samuel G.	Ahmic Harbour	Smyth, Job E.	Cache Bay.
Rothena, Charles F.	Sturgeon Falls.	Sage, Nelson.	Muskoka Mills.
Ryan, Alfred	Byng Inlet.	Seymour, Edward.	Whitefish.
Rogers, Fred	Sault Ste. Marie.	Shaw, Thomas B.	Waubaushene.
Reid, George William	Fort Frances.	Swanston, James.	Peterborough.
Robertson, John A.	Kenora.	Simpson, William.	Hall's Bridge.
Robinson, Wm.	Bobcaygeon.	Sadler, Thomas.	Lindsay.
Reid, Joseph B.	Lindsay.	Smith, Patrick Albert	Norman.
Ross, Walter M.	Ottawa.	Snaith, Wm. J.	Mattawa.
Ruttle, H. A.	Carleton Place.	Sinn, William F.	Arnprior.
Richards, Benedict	Ottawa.	Sheppard, Wm. Joseph.	Waubaushene.
Regan, John	Orillia.	Spears, Milton B.	Barry's Bay
Russel, Wm.	Pembroke.	Stevenson, Arthur.	Peterborough.
Ramsay, Charles	Sudbury.	Stein, Paul.	Sault Ste. Marie.
Russell, Corsan L.	Pembroke.	Shaw, Alfred.	Thessalon.
Richards, Henry	Dacre.	Sequin, Napoleon.	Spanish Station.
Ryan, Wm.	Killaloe.	Scrim, Robert.	Arnprior.
Reid, John P.	Spanish Mills.	Sharp, James A.	Sudbury.
Ridley, Robert	New Liskeard.	Shaneay, Harry S.	Cook's Mills.
Riley, Charles W.	Hutton House.	Smith, Wm.	Ottawa.
Raymond, Morris T.	Spanish Mills.	Stewart, Daniel.	Braeside.
Rooney, Wm. H.	Campbellford.	Sheehan, Michael H.	Waubaushene.
Revell, J. O.	Dryden.	Smith, Sydney H.	Bracebridge.
Rankin, Anthony	Cache Bay.	Stewart, James A.	Pembroke.
Ross, Angus	Orrville.	Sproule, Newton H.	Schomberg.
Robinson, Albert E.	Washago.	Simmons, Alex.	Port Arthur.
Robinson, Edward	Washago.	Scott, Thomas.	Parry Sound.
Robinson, Thomas G.	Washago.	Smith, Lawrence.	W. Saginaw, Mich
		Shea, Stewart.	Campbellford.

Appendix No. 51.—Continued.

Name.	P. O. Address.	Name.	P. O. Address.
Sullivan, John.....	Sault Ste. Marie.	Thompson, Joseph H.....	Bracebridge.
Sinclair, Finlay.....	Sudbury.	Taylor, Edward A.....	Westmeath.
Shiels, Henry F.....	Cartier.	Tait, Ralph.....	Arnprior.
Smith, Gideon Ousley.....	Burk's Falls.	Train, William.....	Burk's Falls.
Smith, John Wallis.....	Thedford.	Turner, Garvin F.....	North Bay.
Smith, Henry G.....	Arnprior.	Tilson, Joseph.....	Burk's Falls.
Story, John A.....	Ottawa.	Tuffy, John.....	Cartier.
Sweezy, Benjamin.....	Massey.	Thorpe, Thos.....	Pembroke.
Sheppard, Charles H.....	Coldwater.	Taylor, Chas. E.....	Gravenhurst.
Sinclair, Arnon D.....	Arnprior.	Tench, Arthur.....	Hekkla.
Smith, Sidney E.....	Ottawa.	Tulloch, William A.....	Sault Ste. Marie.
Sleeman, Wm.....	Rapid River.	Taylor, Alex. M.....	Burnstown.
Sheeman, Peter F.....	Loring.	Toner, J. A.....	P'r't'ge du F'r't, Q.
Sleeman, Geo.....	Rapid River.	Thrasher, Henry G.....	Pembroke.
Sims, William K.....	Sault St. Marie.	Tooke, Frank.....	Bala.
Skahill, William.....	Blind River.		
Shaw, George.....	Thessalon.	Udy, Dean.....	French River.
Sarsfield, George Francis.....	Sault Ste. Marie.	Urquhart, Elias.....	Gravenhurst.
Standish, William H.....	Batchawining	Urquhart, Andrew.....	Barrie.
Simpson, William A.....	Lakefield. [Bay.	Vigrass, Percy J.....	Dufferin Bridge.
Scollard, Wm.....	Young's Point.	Vincent, Joseph.....	Warren.
Shuttleworth, Alma.....	Trout Creek.	Vollin, Samuel.....	Nosbonsing.
Shanacy, Wm. J.....	Sprague.	Vannier, Nelson Joseph.....	Bobcaygeon.
Seely, George.....	Arnprior.	Vincent, James.....	Fesserton.
Stewart, Alex. W.....	Lanark.	Vincent, Henry T.....	Port Sidney.
Soreny, William.....	Braeside.	Vanderburg, Norman.....	Wisawasa.
Schneder, Frederick.....	Cache Bay.	Valois, Armand.....	Mattawa.
Smith, James D.....	Rat Portage.		
Sullivan, Jas.....	Alymer, Que.	White, Thomas S.....	Bracebridge.
Scully, Cornelius.....	Whitney.	White, A. Thomson.....	Pembroke.
Savoy, Futrope.....	North Bay.	Watt, R. A.....	Spanish.
Smith, Walter J.....	Campbellford.	Wilkins, Hughes.....	Blind River.
Seymour, John J.....	Whitefish.	Wallace, T. William.....	Blind River.
Smith, Alex. R. C.....	Burk's Falls.	White, Joseph W.....	Bracebridge.
Stewart, Richard M.....	Chelsea, Que.	Watson, Wm.....	Huntsville.
Souliere, John H.....	Canoe Lake.	Webb, Geo. W.....	Parry Sound.
Smith, Abram G.....	Quyon, Que.	Wilcox, Thomas.....	Parry Sound.
Swallow, C. H.....	Day Mills.	Wheeler, J. A. McL.....	Tamworth.
Strave, A. M.....	Mine Centre.	Widdifield, C. H.....	Pine Orchard.
Stewart, John.....	Fort Frances.	Whitmore, Edgar.....	Rosseau Falls.
Sullivan, George L.....	Rainy River.	Wright, L. B.....	Sault Ste. Marie.
Short, James.....	Kenora.	Ward, Joseph W.....	Ottawa.
Taylor, Fred L.....	Parry Sound.	Wilkinson, W.....	French River.
Thomas, Griff J.....	Thessalon.	Waldie, John E.....	Victoria Harbor.
Thomson, R. D.....	Biscotasing.	Wigg, Thomas G.....	Thessalon.
Tait, Thomas B.....	Burk's Falls.	Wall, Patrick B.....	Cheboygan, Mich
Taylor, C. M.....	Gravenhurst.	Wells, John R.....	Little Current.
Thornton, W. D.....	Longford Mills.	Whiteside, John.....	Huntsville.
Trussler, Gilbert.....	Trout Creek.	Watt, Wm.....	Peterborough.
Thompson, Geo. S.....	Lindsay.	Wilson, George.....	Lindsay.
Thompson, Frederick A. H.....	Callander.	White, Thomas.....	Parry Sound.
Thompson, Francis Henry.....	Nosbonsing.	Wood, William D.....	Sault Ste. Marie.
Train, A. C.....	Rowan Mills.	Watts, John J.....	Fort Frances.
Turgeon George.....	Cook's Mills.	Webster, George F.....	Fort Frances.
Thayer, William.....	Sault Ste. Marie.	Wright, Percy.....	Fort Frances.
Thompson, Alexander W.....	Arnprior.	Watts, William B.....	Fort Frances.
Taylor, Thomas G.....	Gravenhurst.	Watson, Wm.....	North Bay.
Trowse, A.....	Arnprior.	Wagner, Fred.....	Kenora.
Tucker, Louis A.....	Fort Frances.	Wainwright, Edward C.....	Huntsville.
Thompson, Daniel.....	P'r't'ge du F'r't, Q.	Wilson, Wm. James.....	Deseronto.
Thompson, Richard.....	Kenora.	Weston, Frank R.....	Midland.

Appendix No. 51—Concluded.

Name.	P.O. Address.	Name.	P.O. Address.
White, James B.....	Manitowaning.	White, Allan.....	Pembrcke.
Warren, Robt. M.....	Cache Bay.	Warner, Franklin H.....	Fort Frances.
Wilson, Geo. A.....	Balsam Hill.	Watts, George.....	Fort Frances.
Welch, Harold.....	Milberta.	Wood, Thos.....	Parry Sound.
Wilson, James A., Jr.....	Webbwood.	White, William.....	Peterborough.
Woods, John R.....	Antrim.	Woods, A. L.....	Kenora.
Wardell, Ernest C. S.....	Victoria Harbor.	White, John B.....	Kippewa, Que.
Woods, Joseph F.....	Roach's Point.	Whelan, Peter M.....	Renfrew.
Whaley, Thomas.....	Huntsville.		
Webster, Wm. Alfred.....	Bracebridge.	Younge, Harvey D.....	Fort Frances.
Wornsdorf, Frederick Gutle.....	Pembroke.	Young, R. H.....	Fort Frances.
Warrell, Wm.....	Trout Creek.	Yuill, John Albert.....	Braeside.
Wims, Peter.....	Blessington.	Young, Wm.....	Severn Bridge.
Wickware, Philip Almonte.....	Cloyne.	Young, A. J.....	Cache Bay.
Wilson, Edward.....	Deseronto.	Young, Samuel.....	Coldwater.
Whelan, P. J.....	McDougall.	Young, Patrick P.....	Young's Point.
Whyte, John Thomas Goth.....	Ottawa.	Young, Francis G.....	Young's Point.
Watterworth, J. A.....	Sault Ste. Marie.	Yuill, Thomas.....	Arnprior.
White, Wm. James.....	Muskoka Falls.	Yuill, A. D.....	Braeside.
Warrell, George.....	Powassan.	Young, C. T.....	Harvey.
Wells, George W.....	Little Current.	Yuill, John Alex.....	Arnprior.
Wilson, Frederick Gould.....	Kenora.	Yuill, Archibald.....	Bracebridge.
Wallace, John Thomas.....	Thessalon.	Yuill, Wm.....	Braeside.
Wilkins, George N.....	Baysville.		Total 1264.
Wylie, Byron M.....	Webbwood.		

AUBREY WHITE,
Deputy Minister.

A HISTORY OF CROWN TIMBER REGULATIONS.

From the date of the French Occupation to the Present Time.

Compiled with the Assistance of Mr. Aubrey White,
Deputy Minister of Lands and Forests.

Reprinted from the Annual Report of the Clerk of Forestry, for the Province
of Ontario, 1899.

The French Regime.—The Seigniors.

The Ontario system of dealing with the timber upon Crown Lands, as it exists to-day, is far in advance of any other system of regulating the disposal of public timber resources on this Continent. Those in charge of it from time to time have made greater efforts to preserve for public uses as large a measure as possible of the country's natural wealth than have been attempted elsewhere. Though, owing to the difference of local conditions, we are, as yet, far from the perfected forestry system of Europe, the result of the increased attention bestowed upon the question of forest preservation has been a gradual development in the direction of modified forestry methods, calculated to secure the perpetuation of the woodlands with the least possible disturbance of existing interests. The latest legislation providing for the establishment of forest reserves is a further step to the same end, designed not only to secure for the people the largest possible present return from the timbered area of the Crown domain, but to secure that revenue in perpetuity. In order to a thorough understanding of the present system as it has been evolved by means of numerous modifications and advances from the point of beginning, with a view to possible suggestions for such alterations as may more efficiently subserve the ends in view, it is necessary to study its growth and development from the earliest days of Canadian colonization to the present time. Moreover, to obtain a complete grasp of the subject in all its bearings it is requisite to consider it in connection with the various systems of Crown Land management which have from time to time prevailed. The two branches of administration are so intimately connected that it is hardly possible to treat intelligently of one of them without largely adverting to the other. In fact, during the French Regime the timber resources were regarded as of comparatively little importance and furnished such a small part of the commerce, or the interests of the colony, that they were treated merely as incidental to the general land policy of the Government, and the relations between the Crown, the Seignior and the habitant under the feudal tenure which then prevailed. Apart from the adjustment of the respective rights and privileges of these parties in the timber upon the lands granted for settlement, there can hardly be said to have been any system of timber regulations in existence. The aim of the French in colonizing the banks of the St. Lawrence was to reproduce, as far as possible, in spirit and in form the political and social institutions of France in their New World Empire. They faithfully copied those survivals of the feudal system, based upon the needs and conditions of a bygone age, which, already out of harmony with the growing spirit of industrial and commercial development at home, were doubly unsuited to the environ-

ments of a new country. The principal characteristic of the system was the broad and clear-cut distinction between classes recognized by law and embodied in the system under which the lands of the colony were distributed and held. Large areas were allotted to the Seigniors, who were the only class to hold their titles directly from the Crown, and received their grants on the express condition of subdividing them among tenants or censitaires. The conditions upon which the latter obtained their lands not only involved the payment of rents, but the performance of a number of other duties and obligations, not always exactly defined, and numerous reservations and conditions affecting the land, some of which were in accordance with the terms of the original grant, while others appear to have been arbitrary or in accord with ancient feudal custom. The Seignior was invested with privileges of a much more extensive character than appertain to the landlord under the British law, among others the authority of administering justice among his dependents.

A Seignorial Grant.

The following extract from a grant made in 1683 by the Gouvernor and Intendant of Quebec embodies the conditions upon which the Seigniories were usually granted.

Oak Timber Reserved.

"We, in virtue of the power intrusted to us by His Majesty, and in consideration of the different settlements which the said Sieur de la Valliere and the Sieur de la Poterie, his father, have long since made in this country, and in order to afford him the means of augmenting them, have to the said Sieur de la Valliere given, granted, and conceded and by these presents do give, grant and concede the above described tract of land; to have and to hold the same himself, his heirs and assigns forever, under the title of fief, Seigniory, high, middle and low justice (*haut, moyen, et basse justice*), and also the right of hunting and fishing throughout the extent of the said tract of land; subject to the condition of fealty and homage (*foi et hommage*) which the said Sieur de la Valliere, his said heirs and assigns, shall be held to perform at the Castle of St. Louis in Quebec, of which he shall hold under the customary rights and dues agreeably to the custom of Paris, which shall be followed in this respect provisionally and until otherwise ordained by His Majesty; and that the appeals from the judge of the said place shall lie before the Lieutenant-General of Three Rivers; and also that he shall keep house and home (*feu et lieu*) and cause the same to be kept by his tenants on the concessions which he may grant them, in default whereof he shall re-enter *pleno jure* into the possession of the said lands, that the said Sieur de la Valliere shall preserve and cause to be preserved by his tenants within the limits of the said tract of land, the oak timber fit for the building of vessels; and that he shall give immediate notice to the King or to us, of the mines, ores, or minerals, if any be found therein; that he shall leave and cause to be left all necessary roadways and passages; that he shall cause the said tract of land to be cleared and inhabited, and furnished with buildings and cattle within two years from this date, in default whereof the present concession shall be null and void; the whole under the pleasure of His Majesty, by whom he shall be held to have these presents confirmed."

It will be seen that this document comprises a reservation of the oak timber on the domain adapted for shipbuilding. This condition was general if not universal, in all the grants made by the French Crown. The

only aspect of the question in which the Government took any concern was the maintenance of an ample supply of timber for the Royal Navy. Some later grants, in addition to oak, reserved timber for masts and spars, presumably pine. Apart from this object, the disposal made of those pine forests, which in modern estimation form so important a feature of national wealth, by either Seignior or habitant, seems to have been regarded with indifference, and no idea was apparently entertained of holding them as a source of revenue, or a valuable possession of the Government, irrespective of the land. The old records show that the reservation of oak timber in the grants of Seigniories was by no means a dead letter. In 1731 a permission was issued to cut oak timber for a war vessel in the following terms:

Permit to cut Oak.

"It is permitted to Sieur Abbe le Page to cut in the seigniories of Berthier and Dautray two thousand cubic feet of oak wood, following the plans and models which we have caused to be forwarded to serve for the construction of war vessels of five hundred tons, which the King designs to have constructed in Quebec, which timber he shall conduct in rafts (*cageux*) in the River St. Charles before the palace of this city to be there received and inspected in the customary manner.

"The present permission is given in conformity to the reservation which His Majesty has made of this wood for his service in the concession of lands and seigniories in this colony.

"We command the Seigniories, the captains and coast officials and all other to whom it may appertain, to aid, and cause to be aided, if it is necessary, the said Sieur le Page in the said exploitation, in return for reasonable wages to those whom he shall employ in the aforesaid exploitation.

"Done at Quebec, the 5th of October, 1731.

"Note.—Similar permission has been extended to Sieur de Bleury, in the Seigniory of Longueuil which abuts on the said Seigniory of Chambly, and for three leagues extending along the River of Sorel on both sides past the said Seigniory of Chambly and descending the said River of Sorel.

(Signed) HOCQUART.

In 1740 the Governor, having been informed that a considerable quantity of oak suitable for the construction of the King's vessels had been found at Isle Jesus in the Seigniories of the Lake of Two Mountains, and in Isle Bizard, issued an ordinance expressly forbidding the proprietors "of whatever quality or conditions they may be" cutting any oak until it had been inspected and such of the trees that were found adapted for naval construction marked and retained. The penalty of any contravention of this ordinance was to be confiscation of the timber and fine of ten livres for each tree destroyed.

Early Settlers' Grievances.—The property of the Crown.

The reservation of all *oak trees*, as in the case of the present reservation of *white pine* in patents granted to settlers, sometimes created difficulties in regard to the clearance of the land. Obviously if the reserved trees grew in any considerable number on the habitant's grant he could not fulfil simultaneously his undertaking to clear the land and the stipulations as to pre-

serving the timber. A case arising out of a dilemma of this sort in 1722 is on record, when Michael Laliberte, habitant of Isles Bouchard, appealed to the Governor against his feudal superior, Sieur Desjordy. Laliberte in extending his clearing cut down some oaks, and instead of following what appears to have been the usual practice of burning them on the land, had them sawn into boards. This the Seignior claimed that he had no right to do under his title deed, whereby oaks were expressly reserved, and by way of penalty confiscated 36 minots of wheat due to Laliberte under an agreement whereby the latter was cultivating land of Desjordy's on shares. The Governor decided that as the reservation of oaks in the deed to Laliberte was made in consequence of a clause in the original deed of the Seignior obliging the proprietor to cause his tenants to reserve the oak timber for the royal navy, the timber could not in any case belong to the Seignior; furthermore, that as it was desirable that the land should be improved, which could not be done without cutting down the trees it was for the public benefit that valuable timber so cut down should be made into boards or cordwood, rather than burned on the spot, as the money so realized would help the inhabitants to establish themselves. Accordingly Sieur Desjordy was prohibited from further troubling his tenants when getting out and disposing of oak timber in future in the process of extending their clearings. In cases where the party cut the timber down solely to sell it without afterwards clearing the land, he was permitted to seize the timber and bring the case before the Governor. It appears from this decision that even at that comparatively early date the powers of a Seignior, however extensive in theory, were nevertheless in course of being very considerably modified in practice.

Trespass.

Complaints as to the trespasses made by the habitants in cutting wood upon ungranted lands or property not belonging to them were of frequent occurrence, and numerous ordinances were issued from time to time in prohibition of the practice. The following ordinance indicates the difficulties experienced by the authorities at an early date in dealing with such cases:

"Upon the complaints which have been made to us by many inhabitants of this city, proprietors of the lands of Cote Saint Jean and neighborhood, that some individuals away from the said lands cut down and carry away, daily, wood for burning, against and in spite of the prohibitions which have been made by many ordinances heretofore given, by which it is forbidden as well to the said inhabitants of this city as to those of the said quarter, to cut down or take away any wood upon the lands of the other inhabitants on penalty of fifty livres fine, and of confiscation of the trucks and horses which shall be found laden with the said wood, which it is necessary to consider in reiterating the said prohibitions.

"We most expressly prohibit and forbid all persons to cut down or carry away any wood on the lands of which they are not proprietors, without previously having obtained the permission of those to whom they belong, on penalty against each of those contravening of fifty livres fine, and of confiscation of the trucks and horses which shall have served to transport the said wood, the said confiscation and fine to be applicable half to the proprietor of the lands upon which the wood shall be taken and the other half to the Hotel Dieu of this City.

"And the present ordinance shall be read, published and affixed at the close of the grand mass of this said city, and of that of the parish of Notre

Dame de Foy, to the end that the inhabitants of this said city and those of the neighborhood shall not be able to pretend cause of ignorance of it.

"We command, etc. "(Signed) MICHAEL BEGON.

"Done at Quebec, the 27th of December, 1713."

A similar prohibition was issued in 1747 at the suit of the Ursuline Nuns of Quebec, proprietors of the Seigniory of Sainte Croix, whose inhabitants were charged with cutting wood upon lands not included in their grants, "which is a considerable injury to them, because the said lands being impoverished no habitant wishes to take them to establish himself there." A penalty of ten livres was accordingly proclaimed for all contraventions of the ordinance, to go to the Fabrique of the parish.

Local Improvement Laws.

Another question which arose at an early day in the history of the province concerned the furnishing of supplies of timber for bridge building. The following ordinance dealing with the subject seems to embody the germs of our modern much criticized local improvement system:

"Michael Begon, Intendant of Justice, police and finances in Canada, Acadia, the Island of Newfoundland and other northern French countries.

"It being necessary to prevent the disputes which may arise on the subject of furnishing the timber necessary for the construction of the bridges over the rivers which pass through the main roads, we ordain that all the timber necessary for the construction of the said bridges shall be taken from the lands nearest the said rivers, considering that the proprietors of these lands receiving the accommodation of these bridges and these rivers ought also to sustain the expense of them.

"We enjoin upon all the inhabitants of the parish where the said bridges shall be made to labor in cutting down all the timber which shall be necessary for this work, and to deliver it upon the spot.

"We command the captain of the district to attend to it.

"(Signed) BEGON.

"Done at Quebec, 6th March, 1713."

Oak Reserved for Navy Only.

There appears to have been no reservation of timber in the old grants for military purposes, or any other public use than naval construction. By an ordinance of the Superior Council, dated 10th July, 1664, compensation is directed to be made by the Government to Sieur Poyer for timber taken from his Seigniory for the construction of casemates, for which he was ordered to be paid the sum of twenty-five livres, tournois. But during the later years of the French regime the tendency was to extend the restrictions under which land was granted, with a view to providing for other public requirements from the timber existing on the grants without having to make compensation. A comprehensive report on the subject of the Seigniorial tenures was made to the Legislative Council of Quebec by Hon. J. Williams, Solicitor-General of the Province, on the 5th October, 1790. He enumerates the reserves and conditions customary in the ordinary grants, the only one relating to timber being that already referred to, viz.: "That the grantee should conserve all the oak timber growing on his domain, and cause all the oak timber suitable for the construction of the King's ships to be preserved by his

feudatories and tenants." The more modern grants, the report goes on to say, comprise the same reserves and conditions, but contain yet other stipulations. One of these is as follows:

Army Reserves

"That provided the King has need of any part of the lands granted for the construction of forts, batteries, armouries, magazines or other public works, he shall have the liberty to take such portion, together with the necessary trees and timber, and fuel for the supply of the garrison in the area of the granted lands without being held or obliged to make any compensation for it to the grantee. In many of the later grants the King reserves to himself the right to take oak timber, masts and yards, and all other timber fit for the construction and equipment of his vessels without making any compensation for it. And in one grant the King reserves for himself the red pine to make mouldings (*du godron*)."

Landlord and Tenant.

The Seigniors, acting no doubt under the influence of Old World traditions, such as frequently maintain themselves longer in an isolated colony than in their original birthplace, appear to have exacted from their tenants many conditions which were not strictly legal. They inserted extensive reservations in the title deeds which were not warranted by the conditions on which they were held from the Crown. The relations between the Seigniors and their tenants, as the system fell into desuetude, continued to be a vexed question in Lower Canada long after the cession of Canada to the British, and were not finally settled until the passing of the Seigniorial Act of 1854," which provided for the extinguishment by compensation of the somewhat shadowy and indeterminate vestiges of the Seigniorial title to lands, the occupants of which had practically become the owners. By this enactment a special court was constituted to ascertain, as far as possible, in just what particulars the claim of the Seigniors for compensation for the relinquishment of all their privileges was legally valid. Among the numerous questions submitted to this tribunal by Hon. Lewis Thomas Drummond, Attorney-General for Lower Canada, in order to arrive at a basis for fixing the amount of compensation to be awarded, was the following relating among other matters to reservations of timber made in the grants by Seigniors to inhabitants other than those specified in the original grants from the Crown.

Seigniorial Tenure.

"In various deeds of grant of lands held *en roture*, covenants are found tending to establish in favor of the Seignior, reservations similar or analogous to the following:—

1. A reservation of the timber for the building of the manor-house, mill and churches without indemnity.
2. A reservation of firewood for the use of the Seignior.
3. A reservation of all marketable timber.

Were these reservations, or any, and which of them, legally made, and do they give the Seignior a right to be indemnified for the suppression of them to be effected by the said Seigniorial Act?

The summary of the judgment of the Court upon these points was as follows:—

"All reserves must be held to be legal the object of which was the obligation upon the tenant (*censitaire*) to allow the accomplishment by the Seignior on his part, of the obligations of that nature stipulated by the King in the grant of the fief.

Illegal Reservations.

"That the following reservations or others, analogous to them, were illegal and do not give to the Seignior a right to indemnity by reason of their suppression. Art. 1—A reservation of firewood for the use of the Seignior. Art. 2—A reservation of all marketable timber. * * * *

"The reservation of timber for the construction of churches without indemnity, and the reservation of the right of fishing and hunting on the lands conceded are illegal and give no right to indemnity.

"The question being put 'is the reservation of timber for the building of the manor-house and mills without indemnity legal, and does it give to the Seignior a right to indemnity for its suppression?' the Court is equally divided."

Briefly then, the main features of the system of timber administration at the close of the period of French rule in Canada were the reservation by the Government of timber adapted for naval and military purposes, and the further customary but not strictly legal, reservations by the Seigniors, of timber for various purposes out of the forest products of the holdings leased to their habitants, with frequent interventions on the part of the authorities to prevent the unauthorized stripping of lands of their timber by those not entitled to it, without any attempt to make the timber resources tributary to the public revenue.

THE BRITISH OCCUPATION.

When the British took possession of the colony in 1763 very elaborate instructions were furnished to the first Governor, James Murray, as to his administration of the new acquisition. The first thought of the Home Government in relation to the forests of Canada was the necessity of preserving the timber for the same purposes which were regarded as of such paramount importance by the French. They appear to have contemplated a more general and systematic method of accomplishing this object than the mere reservation of the timber in the deeds, as will be seen from the following extracts from Governor Murray's instructions dated Dec. 7th, 1763.

"You are therefore to lay out townships of convenient size and extent in such places as you, in your discretion, shall judge most proper; and it is our will and pleasure, that each township do consist of about 20,000 acres, having, as far as may be, natural boundaries extending up into the country and comprehending a necessary part of the river St. Lawrence where it can conveniently be had.

The First Forest Reserves.

"And you are also to reserve to us proper quantities of land in each township for the following purposes, viz.: For erecting fortifications and barracks where necessary, or other military or naval services, and more particularly for the growth and production of naval timber if there are any woodlands fit for that purpose.

Strict Regulations.

"And whereas, it has been further represented to us that a great part of the country in the neighborhood of Lake Champlain, and between Lake Champlain and the River St. Lawrence abounds with woods, producing trees fit for masting for our Royal Navy and other useful and necessary timber for our navy constructions; you are therefore expressly directed and required to cause such parts of the said country, or any other within your government that shall appear on survey to abound with such trees and shall be convenient for water carriage, to be reserved to us and to use your utmost endeavor to prevent any waste being committed upon the said tracts by punishing in due course of law any persons who shall cut down or destroy any trees growing thereon, and you are to consider and advise with our council whether some regulation that shall prevent any sawmills whatever from being erected within your government without a license from you or the Commander-in-Chief of our said province for the time being, may not be a means of preventing all waste and destruction in such tracts of land as shall be reserved to us for the purposes aforesaid."

It is to be regretted that these instructions as regards the maintenance of the timber reserves were not carried into effect, the new rulers no doubt finding many matters of a more urgent character on their hands, and possibly concluding as observation revealed the vastness of the supply, that solicitude for the future was superfluous. Had the far-sighted policy outlined by the British Government been followed, and a timber reserve maintained in each township in addition to such extensive reservations of pine-growing lands as are indicated in this document, with the adoption of precautionary measures against waste and destruction, the agricultural fertility of large overcleared tracts now suffering from greatly diminished productiveness would have been retained, and extensive areas now rendered unproductive by being denuded of their timber, would still contribute to our national prosperity.

Pine Lands Reserved.

Twelve years afterward in 1775 the same views were still entertained by the British authorities. Again, the setting apart of pine-bearing lands was enjoined, Guy Carleton, "Captain General and Governor-in-Chief of the Province of Quebec and all territories dependent thereon," receiving among other instructions, the following in relation to pine bearing lands.

"It is our will and pleasure, however, that no grant be made of any lands on which there is any considerable growth of white pines fit for masting for our Royal Navy, and which lie convenient for water carriage, but that you do cause all such lands to be set apart for our use, and proper Regulations made, and Penalties inflicted to prevent trespasses on such tracts, and the cutting down and destroying the trees growing thereon."

The Rules and Regulations for the conduct of the Land Office Department, issued in Quebec under date of February 17th, 1789, were based upon the same principle of preserving in the hands of the Crown, any tracts of land of a specially valuable character either by reason of their location or their natural products, and confining the grants made to individuals to ordinary agricultural lands. The following is the text of the regulations dealing with the subject:—

Minerals and Water Powers Reserved.

"And to prevent individuals from monopolizing such spots as contain mines, minerals, fossils, and conveniences for mills and other singular advantages of a common and public nature, to the prejudice of the general interest of the settlers, the Surveyor General and his agents or Deputy Surveyors in the different districts, shall confine themselves in the locations to be made by them upon certificates of the respective boards to such lands only as are fit for the common purposes of husbandry, and they shall reserve all other spots aforementioned together with all such as may be fit and useful for ports and harbors or works of defence, or such as contain valuable timber for shipbuilding or other purposes, conveniently situated for water carriage, in the hands of the Crown."

No approach was made to a license system, nor any arrangement made by which the public could receive any return for the privilege of cutting timber on the Crown domain for other purposes than naval construction, until a considerably later date.

Naval Contract Abused.

Licenses to cut timber in the Canadian forests were granted by the Home Government to the contractors for the Royal Dockyards, who in addition to filling their contracts, took advantage of the privileges afforded them for that purpose, to do a general business in supplying the British markets. They carried on this profitable enterprise by issuing licenses to merchants and lumbermen in Canada who operated as their agents, as they were legally authorized to do. The Upper Canada Gazette contains the following notice of a Royal Warrant vesting in a firm of navy contractors the right to cut trees reserved to the Crown in Upper and Lower Canada, together with the appointment of a Canadian Mercantile house as their agents, which illustrates the working of the system.

An Extensive Timber Limit.

Council Chamber, 23 January, 1808.

Notice is hereby given by His Excellency, the Lieutenant-Governor-in-Council, to all whom it may concern, that His Majesty has been pleased to issue His Royal Warrant in the words following: George R.

"Whereas, a Contract has been entered into by the principal Officers of His Majesty's Navy, with Messrs. Scott, Idles & Co., supplying His Majesty's dockyards in England and the West Indies, with Canada Masts and Oak Timber, and it being stipulated in the said contract that no Masts or Bowsprits which are cut in His Majesty's Colonies shall be delivered at the Dockyards unless they are cut by License from His Majesty's Surveyor of the Woods in North America, and also if it should be required, under the inspection of this Officer. Upon the representation of the matter to Us by the Commissioner for executing the Office of High Admiral of Our United Kingdom of Great Britain and Ireland, We have thought fit to give Leave, License and Permission unto the said Messrs. Scott, Idles & Co., their agents and workmen, to travel into and search Our Woods in Our Provinces of Upper and Lower Canada, where We have reserved to Us the property in any Woods or Trees, and the right of cutting them, and there to fell and cut so many good and sound trees as may answer the number and dimensions mentioned in the said contract (a copy whereof subscribed by one of

Our Principal Secretaries of State is hereunto annexed) and to carry the said trees through our said Woods to the water-side in order to the transporting and bringing them into our own stores without incurring any penalty or forfeiture by reason thereof.

"And lastly; We do hereby require as well as Our Governor or Lieutenant-Governor of Our said Colonies as you and all Our Officers, Ministers and Loving Subjects, whom it may concern, to be aiding and assisting to them, their Agents and Workmen, in whatever may relate to the due execution of this service, pursuant to the Contract above mentioned. And for so doing this shall be your warrant.

"Given at Our Court of St. James, the second day of October, 1807, in the forty-seventh year of Our reign.

"By His Majesty's Command,

(Signed)

"CASTLEREAGH.

"To our Truly and Well Beloved Sir John Wentworth, Baronet, Surveyor General of Our Woods on the Continent of America, or to his Deputy or Deputies, or to the said Surveyor General of Our said Woods, his Deputy or Deputies, for the time being, and all others whom it may concern."

Transfer of License.

"We, the undersigned contractors named in His Majesty's Gracious Warrant, do hereby appoint Messrs. Muir & Joliffe our agents at Quebec, for the purposes within mentioned.

(Signed) SCOTT, IDLES & CO.

London, 9th October, 1807.

"His Excellency further gives notice, that a Contract has been made under the authority of the said Warrant with Messrs. Scott, Idles & Co., Merchants in London, who have appointed Messrs. Muir and Joliffe, Merchants at Quebec, to be their agents for the purposes therein mentioned, and that no irregularity may take place on the part of the said Contractors, their Agents or Workmen, His Excellency has thought proper to order the Deputy Surveyor General of the Woods to mark such White Pine Trees as come within His Majesty's orders expressed in the above Warrant.

By His Excellency's Command,

JOHN SMALL,

Clerk of the Executive Council."

Colonial Protection.

A great impetus was imparted to the development of the Canadian lumber industry by the financial policy of the Mother Country during the first quarter of a century. The imposition of heavy duties on foreign timber, levied in the first instance as a revenue measure to provide for the expenses of the French war, but afterwards retained with the avowed object of affording protection to colonial trade, caused a sudden and rapid expansion of the volume of timber importations from British North America.

Preferential Duties.

In the year 1787, when the trade was in its infancy, a general consolidation of the duties took place, the impost on foreign timber being fixed at 6s. 8d. per load of 50 cubic feet brought in by a British vessel, with an

addition of 2d. in case the shipment was made in a foreign vessel. In 1795 the financial strain, caused by the war, occasioned a substantial increase, and a series of additions took place during the following years, the details of which it is needless to specify, until in 1810, which marks the commencement of the protective era, the timber duty was placed at £21.4.8 per load in a British ship, and 2s. 8d. extra in a foreign vessel. The culmination was reached in 1813, when an addition of 25 per cent. all round on customs duties was imposed, making the timber duty £3.4.11, with an additional 3s. 2d. when carried under a foreign flag. A very slight re-adjustment took place in 1819, when the war duties, originally designed to be merely temporary, were consolidated with the permanent imposts. The system was again revised in 1821, and a considerable reduction was made; the duty on foreign timber being fixed at £2 15s. per load, with the addition of 2s. 9d. for the protection of the British carrying trade. Then for the first time a substantial duty, amounting to 10s. per load was imposed on colonial timber, which up to that time had been virtually free, and which still was accorded the protection of 45 shillings per load, as against the European product.

The effects of this policy were soon manifested in the falling off of importations from the Baltic and other European ports, which in the beginning of the century furnished nearly the whole of the timber shipped to Britain, and the corresponding increase of colonial production and exportation.

A Colonial Timber Boom.

An elaborate statistical table, showing the amount of timber consumed in the United Kingdom in each year between 1788 and 1833, with the quantities imported from the North American colonies and Europe respectively, was furnished to a Select Committee of the British House of Commons, appointed in 1835 to consider the question of timber duties. An analysis of these figures shows conclusively the effect of the policy of the Imperial Government in encouraging the development of the Colonial timber industry, which had increased by leaps and bounds. During earlier stages of the period covered by this table, comparatively little change is noticeable in the relative volumes of the European and British North American traffic—the increase in duty not being sufficient to overcome the strong prejudice then widely entertained against Canadian as compared with Baltic timber, and to counterbalance the lower freight from European ports. The first noteworthy increase in the volume of the colonial importation was in 1803, when the number of loads brought in from British North America increased from 5,143 the figure at which it had stood the year previous to 12,133. The European importations for the same year amounted to 280,550 loads. The proportion of colonial timber steadily increased for some years, until in 1807 it reached 26,651 loads, as against 213,636 loads of the foreign product. The next year it had more than doubled, and in 1809 exceeded for the first time the European consignments, the figures being 90,829 and 54,260 loads respectively.

In 1811 the United Kingdom received timber shipments to the amount of 154,282 loads from British North America, and 124,765 loads from European ports. The war of 1812 caused a depression in the colonial trade, during which the foreign article took the lead until 1816, when the colonies supplied nearly twice the quantity furnished by Europe. The volume of British American importation rose from 153,707 loads in that year to 248,669 in 1818. The figures of the trade at this period, and some years

following, show not merely a large increase in the Canadian trade at the expense of the Baltic exporters, but a very steady and considerable augmentation in the total volume of timber consumption. In the five years, from 1819 to 1823 inclusive, the average annual importation from all sources was 452,158 loads, of which 166,600 came from Europe, and 335,556 from the colonies.

Heavy Exports.

The five years following, 1824 to 1828, average as follows:—Total importations of timber, 602,793 loads; European product, 191,890; colonies, 410,903. Notwithstanding that the duty on foreign timber had been reduced, and a small duty on the colonial product imposed in 1821, the expansion of the traffic continued unchecked, showing that very substantial differentiation of 45 shillings per load in favour of British America was sufficient vantage ground as against foreign competition, with cheaper freight rates.

Prejudice Overcome.

The British American trade had to make headway against the general but wholly unfounded prejudice, which for a long time prevailed in Britain with respect to the quality of the colonial growth. The evidence taken in the course of an enquiry into the timber trade by a Select Committee of the House of Lords in 1820, which resulted in the changes of duty effected the year following, brought out some strong expressions of opinion by timber experts as to the inferior grade and undesirable qualities of Canadian timber as regards strength and durability, which to-day would only excite ridicule on the part of any one conversant with the subject. Some of these utterances are worth while giving, as showing the inveteracy of prejudices born of ignorance and dislike of innovation, and the difficulties with which those who seek to divert trade into unaccustomed channels have to contend.

Exploded Theories.

Alexander Copland, a timber merchant and builder, when asked his opinion of the comparative qualities of timber employed, testified as follows: "The timber of the Baltic in general, speaking of Norway, Swedish, Russian and Prussian timber, is of very superior quality to that imported from America; the bulk of that is very inferior in quality, much softer in its nature, not so durable and very liable to dry rot; indeed, it is not allowed by any professional man under Government to be used, nor is it ever used in the best buildings in London. It is only speculators that are induced to use it, from the price of it being much lower than the Baltic timber; and if you were to lay two planks of American timber upon each other, in the course of a twelve month they would have the dry rot almost invariably to a certain extent; if you were to lay two Christiana deals in the same manner for ten years, there would not be the same appearance of it, so that there is something in its quality favorable to the dry rot, which prevents it being used in buildings except where there is a thorough air all around it." He went on to say in reply to other questions, that if the duties were reduced so that the Baltic timber could be sold for the same price as the American product, the latter would never be used except for some temporary purpose.

John White, another experienced timber merchant, gave evidence as regards the supposed liability of American timber to dry rot. "Of the American timber," he said, "we have generally estimated the red pine to

be the preferable, but I have had experience of it lately that induces me to form a very unfavorable opinion; where it has been put into green walls it has universally decayed. The soft or yellow pine timber (white pine) which has not apparently so good a character, when exposed to the air lasts very well; enclosed it is subject to rot. The pitch-pine timber, but which comes from the United States, as, indeed, does the red pine, is subject to decay from dry rot, if enclosed, and that very rapidly."

Many other expressions of opinion to the same effect could be quoted from the testimony taken during this investigation, showing how general at that time was the prejudice against American timber, on the ground of its supposed liability to decay more rapidly than the product of Northern Europe. Despite this general impression as to the inferiority of Canadian timber, the volume of importation, as the figures above quoted show, continued to increase enormously, its cheapness, as compared with the heavily taxed import from the Baltic region, being a strong incentive to its use. When once accorded fair trial, experience quickly proved its merits, and enquiry demonstrated that the notion of its unfitness for building purposes, owing to its special liability to dry rot, was partly due to incidental and preventable causes and partly to the fact that inferior grades of the colonial product had been taken as the standard of comparison with the best of the European timber. These points were clearly brought out in the lengthy and exhaustive investigation held by a Select Committee of the Imperial House of Commons in 1835, when the tone of the testimony given was much more favorable to British-American timber than that recorded fifteen years previously.

Baltic vs. Canadian.

One of the principal witnesses of the investigation of 1835 was Joseph R. Hume of the Board of Trade, who stated that a good deal of very cheap and inferior timber came in from the colonies, which was brought over by "seeking ships," and sold at very low prices. The high protective duty on the Baltic timber kept out the lower and cheaper grades, as it would not pay them to import them, and consequently the British consumer was only acquainted with the better qualities of European timber. A few extracts from the evidence of John Miller, ship-owner and timber importer of Liverpool, given on this occasion, will illustrate the change of opinion in Britain as to the qualities of Canadian pine.

Q. "Is it not the price of different articles which governs the consumption of the consumer?"

A. Not so much as the quality of the article.

Q. Do you mean to say that there would not be a different balance between the two articles [Colonial and Baltic timber], supposing there was no difference in the duties?

A. I mean to say that, for a particular description of American pine, I could get 3d. to 4d. a foot more than for any Baltic, but that is but a small proportion of the import.

Q. For certain purposes, even though there were no duty on either timber, you think that certain better descriptions of American timber would continue to be imported?

A. I know it for a fact. I know that now for the very timber of which I speak, as received in very small quantities, I can get a higher price than I can for any Baltic.

Q. When you spoke of a change of taste rather inclining in favor of the North American timber, did you not speak rather with reference to

your experience of the manufacturing district in your own neighborhood than to the whole country?

A. I spoke more decidedly with reference to my own neighborhood, but I believe it to be applicable also to the port of London. I refer to the prices current, and the import of the port and consumption of the different articles, and I find that the consumption of colonial timber is growing very much upon that of the Baltic.

Q. Have you reason to believe from your intercourse with the leading builders in Lancashire, that the estimation of American timber is much increasing?

A. No doubt of it.

Q. Can you state any facts upon the subject?

A. I can state the opinions I know to be entertained by other people. I know that Mr. Bellhouse, who is the largest dealer in Manchester, has changed the views he formerly entertained as to the comparative merits of the two timbers, and that he now gives a decided preference to the timber from the Colonies.

Q. For all purposes?

Red and White Pine.

A. For all purposes. He, in building large warehouses, has latterly consumed Canadian yellow pine in preference to Canadian red, Dantzic or Memel. He states, I think, that he consumes about 50 cargoes a year, and even when he can get lengths of Canadian red timber or Memel timber to suit the purpose, he uses in preference Canada yellow pine, and he states his reason that, for the last 15 years he has been a close observer of the different qualities of timber and the different effects produced upon it by exposure to the air and influence of atmosphere, and he finds that when you introduce the yellow pine of Canada into brick and mortar the ends are little liable to decay, and that the ends of either of the red pine timber from Canada, or of Memel and Dantzic timber, are more liable to decay.

Q. Does that extend to out-door window frames and such things?

A. We have long used the red pine timber from Canada for that purpose.

Q. Is it more durable when exposed to change of atmosphere?

A. In this country we have not a very great variation of climate, and I apprehend that either timber, if sufficiently exposed to the air will prove durable.

Q. Is not this opinion of Mr. Bellhouse the result of long experience, and is it not a change from his former opinion?

A. Decidedly; and in Glasgow where I know at first they used for building purposes nothing but Baltic timber, this year, I wrote to Glasgow to a correspondent of my own, a large dealer in timber, to give me a statement of the proportion of each sort in consumption there, and he told me that the whole consumption in Glasgow of Baltic timber last year was not 200 loads."

Speaking of the views of timber experts given before the House of Lords Committee in 1820 Mr. Miller added: "I think they were under a mistake which time and further experience have rectified. I know the nature of the evidence adduced at that time and, so far as my own experience goes, almost every opinion there stated has proved to be wrong."

In short the history of the growth of progress of the Canadian timber export trade to Great Britain is simply a repetition of the familiar story of unreasoning and prejudiced opposition to every new departure from the

old established channels of commerce and industry, yielding, gradually but surely, as the innovation succeeds in justifying itself by the test of practical experience. Sooner or later, the timber resources of Canada would have found a market in Britain under any circumstances, but there is no doubt that the financial policy, which, by imposing higher duties on the Baltic timber, gave the colonial product such great advantage in cheapness to the consumers, greatly hastened the period of its introduction for building purposes. Once established firmly in popular appreciation it maintained its ground in spite of the changes in fiscal policy, which deprived it of these factitious advantages.

Duty Reduced.

In 1842 the duty was reduced to 25s. per load on foreign, and 1s. on colonial timber, without resulting in any permanent diminution in the volume of importations from British North America. The great Free Trade movement which resulted in the repeal of the corn laws in 1846 witnessed a further reduction in the foreign timber duties and the total abrogation of the hardly more than nominal impost on the Canadian product.

Gladstone.

In a despatch sent by the Right Hon. W. E. Gladstone, then Colonial Secretary, under date of March 3rd, 1846, to Earl Cathcart, Governor of Canada, announcing the change of policy, the following references to the timber trade of the colonies with Britain occur:—"I have much satisfaction in drawing your Lordship's attention to the fact, that the colonial timber trade prospers under the operation of these changes in the laws which were enacted in 1842, and which had taken full effect before the end of 1843. The increased facilities of internal transit in this country, independently of the very great temporary demand connected with the construction of the railways, that are to effect this great improvement, promise a considerable and permanent extension of the market for foreign woods, an extension likely to be accelerated, unless it be as to Scotland, by the progressive diminution of the home growth of timber through the United Kingdom.

"The description of wood which is supplied by the British North American colonies, the yellow pine, is not chiefly to be regarded as competing with the wood of the Baltic, but rather as available for different though concurrent uses. For example, the increase of Baltic timber, tending to encourage the construction of new buildings by supplying the best materials for particular portions of them, has an effect not in limiting but in extending the demand for Canadian timber, as furnishing the cheapest and most convenient material for other portions, namely, the inward fittings of the very same fabrics.

Duty to Equalize Freights.

"Her Majesty's Government are not indeed prepared to assert that the question of the relation between the duty on foreign timber and the colonial wood trade ought to be adjusted with reference to this consideration alone, and you will perceive that they propose to retain a duty of 15s. per load upon foreign timber, which I apprehend may be considered as, upon the average, nearly covering the difference between freights from the Baltic and those from British North America to the United Kingdom. Not only

are they free from the apprehension that the proposed remission of 10s. per load on foreign timber and 12s. on foreign deals, will cause a contraction of the trade from British North America; but they are sanguine in the anticipation that that trade will continue, notwithstanding the proposed change, to extend itself."

Trade with U. S.

Mr. Gladstone's forecast proved correct and the importation of timber from the British North American colonies continued to increase in volume after the last vestige of protection had disappeared, notwithstanding the advantage enjoyed by the Baltic shippers in proximity to the British market and consequent low freight rates. According to the Canadian trade and navigation returns, the exports of forest products of all descriptions to Great Britain for 1850 amounted in value to £971,375 Canadian currency. Four years later this figure was more than doubled, and in 1857 it stood at £2,044,178. This steady augmentation of the timber shipments to the mother country was moreover proceeding simultaneously with the rapid development of the trade in forest products with the United States, stimulated by the settlement of the scantily timbered or treeless areas of the Western States. In the year preceding Confederation, that ending June 30th, 1867, the American demand stood as nearly as may be on a par with that of the British Islands, the value of forest produce shipped over the boundary line being \$6,831,252, as compared with exports valued at \$6,889,783 which found a market in Britain.

In order to present a clear and connected view of the rise and progress of the timber trade with Great Britain, it has been requisite to note the consecutive phases of British Legislation which contributed so largely to its growth, somewhat out of their chronological order in relation to Canadian development, to which it is now necessary to revert.

First Canadian Timber Laws.

The earliest enactment of a Canadian Legislature bearing on the timber trade was adopted in Lower Canada in 1805, with the object of preventing accidents in navigating the formidable rapids of the St. Lawrence, which owing to the increased quantities of lumber and timber forwarded to Montreal by this route had become frequent. As it formed the precedent for much subsequent legislation dealing with the same question it may be well to present it *in extenso*.

"An Act for the appointment of an Inspector and Measurers of Scows and Rafts, and for regulating the pilots and conductors thereof between Chateauguay and the City of Montreal. (25th March, 1805.)

First Timber Measurer.

"Whereas, many accidents and considerable loss of property have arisen in the rapids of the River St. Lawrence above the City of Montreal partly by the ignorance or negligence of persons undertaking to pilot and conduct scows, loaded with flour and other provisions, also, oak, timber, staves, and other lumber coming from Upper Canada, and firewood from different parts of this Province, above the said rapids, and it being necessary that the regulations be made to guard as much as possible against such accidents and losses, in future. Be it therefore enacted by the King's most Excellent Majesty, by and with the consent of the Legislative Coun-

cil and Assembly of the Province of Lower Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of Great Britain, entitled "An Act to repeal certain parts of an Act passed in the Fourteenth Year of His Majesty's reign intituled: 'An Act for making more effectual provision for the Government of the Province of Quebec in North America,' and to make further provision for the Government of the said Province," and it is hereby enacted by the authority of the same, that it shall and may be lawful for the Governor, or Lieutenant-Governor, or person administering the Government for the time being, by an instrument under his hand and seal at arms to nominate and appoint one discreet and intelligent person resident in the Parish of Chateauguay, to be Inspector, and two others so residing to be Measurers of scows and rafts of timber and lumber, as also of firewood, and from time to time the said Inspector and Measurers, or either of them, to remove, and also in case of death and resignation, another, or others being resident in the said Parish of Chateauguay, to nominate and appoint in his or their place and stead.

2. And be it further enacted by the authority aforesaid, that it shall be the duty of the Inspector and Measurers to keep themselves informed of the state of the water in the rapids between Chateauguay and Montreal, and in consequence from time to time, as often as in their judgment need be to determine what depth of water scows and rafts respectively may draw, to pass through the said rapids in safety, of which depth the said Inspector shall at every such time make a record in a book to be kept by him for that purpose, and the applicant for the measurement of scows and rafts, shall have access thereto, without fee; and the said Inspector upon application to him shall proceed himself, or send one of the Measurers, to take the depth of water which each scow or raft then intended to be conveyed through the rapids draws, and shall brand such draught of water thereupon. Provided that, before any scow or raft shall be so branded, it shall be lightened (if exceeding the same) to the draught of water so determined upon, as the measure of safety, and if the said Inspector and Measurer, or one of them, shall not in a reasonable time proceed to measure any scow or raft, as to the depth of water it draws when applied to for that purpose, or shall refuse or omit to brand the same, when drawing or lightened to draw a depth of water, not exceeding that upon record for the time, or shall brand a scow or raft which exceeds such depth upon record, the Inspector or Measurer so offending, shall forfeit and pay for every such offence, a sum not exceeding forty shillings current money of this Province.

Licensed Pilots.

3. And for the greater safety of property which may be committed to the care of Pilots undertaking for hire to conduct scows and rafts from Chateauguay to Montreal: be it further enacted that every person intending to act as a Pilot in any such case shall annually take out a license to authorize him to practice for hire the piloting and conducting of scows and rafts from Chateauguay to Montreal, aforesaid which license the Justices of Peace for the District of Montreal, in their weekly sittings, or any special session to be held in the said city, are hereby authorized and required, on the recommendation of the Inspector, or any one of the Measurers (if no good reason be shown to the contrary) to grant to the person applying for the same on paying to the Clerk for such license, two shillings and sixpence currency, and no more: and the said Clerk is hereby required to keep a register of the names of the persons who shall be so licensed. Provided always that if any person applying for such a recommendation shall be refused the

same, such person shall be allowed to adduce before such Justices, proof of his capacity to discharge the duties of a Pilot, upon which and after hearing the Inspector or a Measurer, in support of the reasons for such refusal, the said Justices shall grant or withhold a license as they shall see most conducive to the purposes of this Act.

4. And be it further enacted by the authority aforesaid, that if any Pilot having charge of any scow or raft, shall leave Chateauguay to proceed through the rapids to Montreal, before the same shall have been measured as to the depth of water which such scow or raft then draws, and branded as hereinbefore directed, every such Pilot shall for every such offence forfeit and pay a sum not exceeding forty shillings current money of this Province.

5. And be it further enacted by the authority aforesaid, that if any person not being a Licensed Pilot as aforesaid, shall, for hire or payment of any wages, undertake to conduct or pilot through the rapids from Chateauguay to Montreal, any scow, loaded in part or in whole, or any raft of oak timber or staves, or other lumber or firewood, every person so offending shall for every such offence, forfeit and pay a fine not exceeding forty shillings current money of this Province.

Owner may Act as Pilot.

6. Provided, always, and be it further enacted by the authority aforesaid that nothing in this Act contained, shall extend, or be construed to extend, to prevent any person or persons from conducting and piloting from Chateauguay to Montreal any raft or rafts of firewood, which is or are his or their property, but this shall not exempt any such proprietor from first causing such raft or rafts of firewood to be measured and branded as by this Act is directed; and in default of being so measured and branded, every such proprietor shall forfeit and pay a sum not exceeding ten shillings current money of this Province.

Pilots Fees.

7. And it being necessary to fix the hire or wages of Pilots licensed as by this Act is directed. Be it further enacted by the authority aforesaid, that from the opening of the navigation until the first day of October, annually, there shall be paid to the licensed Pilots in lieu of all wages, provisions and ferriage for piloting from Chateauguay to Montreal the following hire or wages, that is to say: For every scow loaded in part or in whole, thirty shillings, currency. For every raft of staves, timber or other lumber consisting of two cribs, and not exceeding eighty feet in length, twelve shillings and sixpence, currency. For a single crib of staves, timber or other lumber, if the proprietor shall require it to be piloted singly, twelve shillings and sixpence, currency. For every raft of firewood, ten shillings, currency. And from and after the first day of October, inclusive, annually until the close of navigation there shall be allowed and paid over and above the before mentioned rates an addition of one-fifth part.

In Case of Accidents.

8. And, whereas, accidents may happen to scows and rafts in their passage from Chateauguay to Montreal. Be it further enacted by the authority aforesaid that it shall be the duty of the pilot having charge of any scow or raft, which shall meet with an accident, to give every assistance in his power, not only to clear the rapids from the impediments which such

accident may occasion, but further to the best of his skill and abilities, to assist in endeavoring to save from loss, the loading of any such scow or raft so meeting with an accident, nor shall he depart or leave the same until discharged by the owner thereof or his agent, under the penalty of the loss of his wages; and, further, a fine not exceeding twenty shillings currency for every such offence. Provided always that over and above the allowance for pilotage to such Pilots as hereinbefore established, there shall be paid to him, for every day that he shall be detained in so clearing the rapids, or in assisting to save the property committed to his charge, the wages following, that is to say: from the opening of navigation until the first day of October, five shillings currency per day, and from the first day of October inclusive, until the close of the navigation, one-fifth more, and in both cases of such detention provisions whilst so employed.

9. And be it further enacted by the authority aforesaid, that it shall be the duty of a Licensed Pilot upon being thereunto required by the Inspector, or either of the Measurers to take charge of any scow or raft, which shall have been gauged and branded, and if any such Pilot shall after such requisition refuse or neglect to take charge thereof, and shall a second time after a like requisition, the same not being made the same day, and the Pilot so required not being then actually engaged to conduct any other scow or raft, nor being incapable from sickness to do his duty, still refuse or neglect to take charge of a scow or raft so gauged and branded, every such pilot so refusing and neglecting a second time shall, upon conviction thereof, forfeit and pay a sum not exceeding twenty shillings currency, and be deprived of his license for the remainder of that season; and if any Pilot so convicted shall nevertheless afterwards presume to pilot any scow or raft, during that season, he shall forfeit and pay a sum not exceeding forty shillings currency.

Inspector's Fees.

10. And be it further enacted by the authority aforesaid, that for the trouble of inspecting, measuring and branding of every scow, crib, or raft, as hereinbefore directed, there shall be paid into the hands of the Inspector the following rates and allowances, that is to say: For every scow loaden in part or in whole, six shillings currency. For every crib of staves, timber or other lumber, two shillings and sixpence currency. For every raft of firewood, one shilling and three pence currency. And for every crib or raft with wheat, flour or other provisions, or pot or pearl ashes thereon, two shillings and sixpence currency. And the monies so received by the Inspector shall be divided and paid as follows, that is to say: two-fifths parts to be retained for himself, and the other three-fifths to the Measurers by equal portions.

Penalty for Non-Payment.

11. And be it further enacted by the authority aforesaid, that all fines and penalties by this Act inflicted, unless otherwise provided for, be sued for within three calendar months after an offence committed, and not afterwards, before any one or more Justices of the Peace in the District, who is and are hereby authorized to hear and determine the same, and on conviction of the offender, by his or her confession, or by the oath of one or more credible witness or witnesses, being other than the prosecutor, the same shall be levied with costs of suit, by warrant of distress, under the hand and seal of such Justice or Justices of the Peace, of the goods and chattels of the per-

son so convicted and one-half of such fines and penalties shall be paid to the prosecutor, and the other half shall be paid into the hands of His Majesty's Receiver General of this Province, to be applied to the public uses thereof; and the same shall be accounted for to His Majesty, his Heirs and Successors, through the Lords Commissioners of His Majesty's Treasury, in such manner and form as His Majesty, his heirs and successors shall direct.

12. And be it further enacted by the authority aforesaid, that if any suit be brought against any person for anything done or executed, by virtue of and in pursuance of this Act, such suit shall be commenced within three months after the matter or thing done, and not afterwards; and the defendant or defendants may plead the general issue, and give this Act and the special matter in evidence, on any trial to be had thereon, and that the same was done in pursuance of and under the authority of this Act, and if judgment shall be given for the defendant or defendants, or the plaintiff or plaintiffs shall become non-suited, or shall discontinue his, her or their prosecution, after the defendant or defendants shall have appeared, then such defendant or defendants may and shall recover treble costs, and have the like remedy for the same as any defendant or defendants hath or have to recover costs in cases at law.

13. And be it further enacted, by the authority aforesaid, that this Act shall continue and be in force until the first of January, one thousand eight hundred and eight, and from thence to the end of the then next session of the Provincial Parliament and no longer."

In 1808 the Act, having been found beneficial in its effects, was made perpetual with some amendments. Scows were exempted from its operations and those in charge of such vessels allowed to make their own arrangements with licensed pilots in place of being subject to a fixed tariff of fees.

Timber Returns.

Persons in charge of rafts or cribs of timber were authorized to employ such licensed pilots as they saw fit, the latter, in case of refusal or neglect of duty, being liable to the same penalties as though engaged by the Inspector or Measurer. The Inspector's duties were somewhat extended and he was required to make an annual return to the Commissioner of Inland Navigation of the number and as far as possible the contents of the scows, rafts and cribs passing during the season.

Improvement Tax.

By another Act passed the same year entitled "An Act to provide a permanent Fund for the Improvement of the Inland Navigation of the River St. Lawrence," rates were levied upon all scows, rafts and cribs passing through the rapids between Chateauguay and Montreal, to be paid to the Inspector of scows and rafts at Chateauguay and applied to the improvement of inland navigation. The rates were as follows: Every scow, fifteen shillings; every crib containing lumber, 7 shillings and sixpence. A more important measure as affecting the timber industry, also adopted in 1808, was the "Act for the better Regulation of the Lumber Trade." "Whereas," it begins, "lumber is become an article of importance in the export trade of this Province, and it would tend to increase its growing reputation to the great advantage of trade, if the quality and measurement thereof were properly ascertained." It was provided that no lumber of the description specified in the Act should be exported until it had been culled,

measured and certified as to quality. The Governor was authorized to appoint persons at the ports of Quebec and Montreal as Master Cullers and measurers of board and plank, staves, timber, masts and spars respectively, as well as at other places in the Province if it should be thought desirable.

Lumber Cullers.

The same person may be appointed Master Culler of more than one of the descriptions of lumber specified. The duty of these officials was personally or by deputy to ascertain the quality and dimensions of the article submitted to their inspection, to reject such as were in any respect defective according to the definitions laid down in the Act, and give a true and faithful account in writing of the number, quality and dimensions of the articles found to be merchantable, which was to be final and conclusive between buyer and seller. Those engaged in the lumber trade were authorized to retain in their exclusive service master cullers and measurers specially licensed, but in such case those delivering lumber to them had the right to object to the culler and insist upon inspection by a public official.

The Act proceeded to define the standard which should determine the mercantile quality of lumber in the absence of any specific agreement between buyer and seller. Those relating to some of the more important staples were as follows:

Timber Standards.

"Square oak timber shall not be less than twenty feet in length and ten inches square for measurement, and shall be free from rot, rings, shakes and other defects, properly squared and butted. Square pine timber shall not be less than twenty feet in length, and not less than twelve inches square for measurement, and shall be free from rot, bad knots, shakes, and other defects, and properly squared and butted; Pine boards shall not be less than ten feet in length, and not less than eight inches in breadth, equally broad from end to end, edged by the saw or neatly trimmed by a straight line, free from rot, sap stains, bad knots, rents and shakes, and of an equal thickness on both sides from end to end. Pine plank shall not be less than ten feet long, nor less than six inches in breadth, equally broad from end to end, edged by the saw or neatly trimmed by a straight line, free from rot, sap stains, bad knots, rents, and shakes, and an equal thickness on both sides from end to end."

Timber Brands.

Provision was made for the stamping of all timber and lumber inspected and found up to the standard of merchantable articles, with the letter "M." Persons shipping timber of any description for exportation which had not previously been culled and measured were liable to a penalty not exceeding £100 and not less than £10, and Justices of the Peace were authorized to issue warrants for the seizure of such lumber on the information of any culler or measurer or any other person.

Seconds.

The Act appears to be somewhat loosely drawn, and to be encumbered with provisoies, which must greatly have interfered with its effectiveness. The first section comprises the following: "Provided also that nothing contained in this Act shall be construed to prevent the shipment of any article

of lumber, notwithstanding such articles may not be of the dimensions hereinafter provided, if the same be of sound and good quality, and marked or certified as such, by one of the Inspectors, to be appointed by virtue of this Act. Provided further, that whereas pine timber, pine plank, pine boards of an inferior or second quality were heretofore imported from the countries bordering on the Baltic into Great Britain and Ireland, and continue to be saleable and useful for particular purposes; nothing in this Act contained shall extend or be construed to extend or prohibit the exportation from this Province of any such pine timber, or pine boards of an inferior or second quality."

It is not at all clear whether the cullers or measurers were required to apply any standard whatever to this second quality lumber, excepting such as might be demanded by the contract between buyer and seller, by which they were in all cases to be governed when such existed. The standards for "merchantable" timber were only to be applied "in all cases where there is no specific agreement between the buyer and seller."

It may fairly be concluded, therefore, that all the Act did, or was intended to do, was to provide a safeguard for those purchasers who desired a superior grade, while practically placing little or no check upon the exportation of lumber of a poor quality provided that it were distinguishable as such.

The Act contains some further provisions as to the salvage of timber adrift in the rivers, and imposing penalties upon those appropriating such timber to their own use, or wilfully setting timber adrift, into the details of which it is unnecessary to enter.

Cullers not to Trade.

This Act, which was to remain in force for only two years, was re-enacted in 1811 with some changes. The section authorizing dealers to retain licensed cullers in their exclusive service was abrogated, and an amendment adopted prohibiting Master Cullers and Measurers from trading in timber under penalty of dismissal from office and a heavy fine. This Act, like the former, was to remain in effect only for two years. Continuing legislation was enacted from time to time until 1819, when the existing enactments were repealed and a new Act adopted, based upon the original law in most of its details, but somewhat more stringent and comprehensive in its provisions. All existing licenses to cullers and measurers were cancelled, and it was provided that no persons other than those who had previously held licenses should be commissioned to act in that capacity thereafter, without having passed an examination as to their qualifications before a Board to be appointed by the Governor. The standard for merchantable lumber was raised by a more detailed specification of the defects to be considered as disqualifications, and the list of descriptions of lumber subject to inspection was considerably amplified.

Cullers and measurers, as before, were to be governed by the contract between the buyer and seller as regards the dimensions and descriptions of the article submitted to their inspection, and the very elaborate and rigid definitions of what constituted "merchantable" timber were only applicable where no specific agreement between the parties existed. The measure in fact presents the same problem of confusing and contradictory provisions as characterized the first legislation on the subject. As in the Act of 1808, the section prohibiting the exportation of any lumber not culled, measured and certified to possess the requisite qualities of excellence specified, was

modified by the proviso that nothing should be construed to prevent the exportation of timber, plank and boards "of any inferior or second quality," with the addition of the clause—"provided the quality thereof be declared in the cocket and manifest accompanying the same by the ships."

Ineffectual Legislation.

At the same time the provision for the seizure of lumber shipped for exportation without having been culled, stamped and marked, was included in the Act of 1819, and another section rendered it penal for the Master or Owner of a vessel to receive on board unstamped lumber. As there is no mention of any intermediate grading or provision for other branding than as "merchantable" or "rejected" the duties of the cullers, as regards inferior qualities of lumber, appear to have been left very badly defined, and the whole question as to the rights and liabilities of exporters in the matter in an extremely chaotic condition so far as the wording of the Act was concerned, though no doubt the custom of the trade furnished a working basis for the system despite these apparent incongruities.

The Act of 1819 was kept in force until 1823, when some amendments were made, and renewed again in 1825, expiring two years later. In 1829 a fresh enactment was made by the Legislature of Lower Canada, much along the lines of the previous laws, but more explicit in its terms, as the whole matter was placed beyond question upon a voluntary or permissive basis.

All the prohibitions as to the shipment of uninspected lumber were omitted, and it was distinctly provided that "nothing contained in this Act shall prevent or be construed to prevent, the shipping or the exportation of any lumber or timber of an inferior quality or size, or without inspection where or when the shipper or exporter shall think proper, to ship or export any such lumber or timber." After being renewed in 1832 it was permitted to expire by the lapse of the term for which it was revived in 1834.

Supervisor of Cullers.

There was no further legislation affecting the lumber trade by the Province of Lower Canada, but after the union of the Provinces in 1840 the Parliament of Canada undertook to deal with the subject. A measure was passed in 1842, by which the Mayor of Quebec was authorized to appoint a Supervisor of Cullers, and the Board of Trade of the same city to appoint a Board of Examiners, by whom all cullers' licenses were to be granted. The inspection of lumber for home consumption was left entirely optional. As regards exportation, the Act provided that no person, being the owner of mills at which deals were manufactured, should be required to cause such deals to be measured, if exported by such manufacturer on his own account, but with that exception, no lumber should be exported without being measured, under a penalty of one penny currency for each cubic foot, or one shilling for each separate piece of lumber so shipped. The Act was to remain in force until the year 1847, but in 1843 it was repealed as being insufficient to accomplish the object in view, and a more stringent measure enacted in its place. The appointment of the Supervisor of Cullers was taken out of the hands of the Mayor of Quebec and vested in the Governor, that of the Board of Examiners being entrusted to the Council of the Quebec Board of Trade. Cullers' licenses were to be issued by the Government on the presentation of a certificate of fitness from the Board of Examiners. Following the principle laid down in several previous Acts, the culler was

required to mark the dimensions of all square timber, and, if requested by the seller or buyer, to stamp every piece of lumber according to quality, the letter "M" indicating what was merchantable, "U" what was sound and of good quality, but under merchantable size, and "R" rejected and unmerchantable.

This measure was repealed in 1845 when the enactment which replaced it established for the first time the system of grading timber in accordance with its quality. Second and third quality standards were adopted both for timber and deals.

The standards for merchantable timber were set out with greater precision and fullness of detail than before.

It was provided that square timber should be measured in accordance with some one of the following modes:—

1. In the raft or otherwise, giving the full cubic contents without any allowance or deduction.

2. In shipping order, which should mean sound, fairly made timber, or,

3. Culled or measured in a merchantable state in accord with the standards prescribed.

The position of the export trade with respect to culling and measuring was thus defined:—"Nothing in this Act contained shall be held or construed to make it compulsory for any article of timber to be measured, culled or assorted, under the provisions of this Act, provided that such lumber be shipped for exportation by sea for account (in good faith) of the actual and *bona fide* producer or manufacturer thereof; but all other lumber shipped for exportation by sea shall be either culled, measured or counted (at the option of parties) by a licensed culler, under the control and superintendence of the Supervisor, under a penalty equal to the market value of any article of lumber so illegally shipped." It was provided that the Act should not extend to any place below the eastern end of the Island of Orleans.

Upper Canada Customs Duties.

There was no similar legislation in Upper Canada, or any measure on the Statute Books of that Province directly bearing upon the lumber industry until 1819, when duties were imposed upon a number of specified articles imported from the United States. Forest products were not included in the list, but it was provided by a general clause that upon all unenumerated goods, the growth, produce or manufacture of the United States, an *ad valorem* duty of 5 per cent. should be levied, with certain specific exceptions, which included staves and headings. A further clause provided "that nothing in this Act contained shall extend or be construed to extend to prohibit the admission of flour, oak, pine, and fir timber into this Province free of duty, for exportation only." At this time a good deal of lumber was imported into the Provinces from the United States, and reshipped from Quebec to the British market, so as to obtain the advantage of the preferential tariff in favor of the Colonies. The extent of this trade attracted the attention of the British Authorities who evidently had no intention that the privileges granted to the Canadian exporter should cover the timber supplies brought into Canada from the United States. In 1820 an official enquiry was instituted. An official statement, made as a return to an address of the House of Commons, showed that the timber imported into Lower Canada from Lake Champlain via the Port of St. John's, from the year 1800 to 1820, included 10,997,580 feet of red and white pine timber, 3,935,443 feet of oak timber, 34,573,853 feet of pine plank, and 9,213,827 feet of pine

boards. The result was that in 1822 an Imperial Act was passed to regulate the trade of the Provinces of Upper and Lower Canada, by which duties were imposed upon lumber and timber imported from the United States, as follows:—

Imperial Duties.

	Sterling.
Every 1,000 shingles not more than 12 inches in length.	£0 7 0
Every 1,000 shingles more than 12 inches in length....	0 14 0
Every 1,000 red oak staves	1 1 9
Every 1,000 white oak staves or headings	0 15 0
Every 1,000 feet white or yellow pine lumber of one-inch thick	1 1 0
Every 1,000 feet of pitch pine lumber	1 1 0
Other kinds of wood and lumber per 1,000 feet	1 8 0
Every 1,000 wood hoops	0 5 3

By a subsequent Act three years later this tariff was continued with some important changes.

The policy of the Imperial Government with regard to the maintenance of permanent timber reserves, which was laid down in the instructions given to the earlier Governors of Quebec, from which extracts have been given, was steadily kept in view after the separation of the Provinces. The elaborate instructions received by the Duke of Richmond, Governor-in-Chief of the Province of Upper Canada, dated May 9th, 1818, comprise the following directions as to the system to pursue in surveying and granting land, with the object of retaining in the hands of the Crown the more valuable timber producing tracts.

Reserv-s. Pine Lands not to be Sold.

35. "Whereas the reserving of such bodies of land within Our Province of Upper Canada, where there are considerable growths of timber fit for the use of Our Royal Navy is a matter of the utmost importance to Our Service; it is Our Will and pleasure that no grant whatever be made in lands in any district or tract of Our said Province of Upper Canada until our Surveyor General or his Deputy, lawfully appointed, shall have surveyed the same and marked out as reservations to Us, Our heirs and successors, such parts thereof as shall be found to contain any considerable growth of masting or other timber fit for the use of our Royal Navy, and more especially on the rivers; and you are hereby instructed to direct Our Surveyor General of Lands in Our said Province, from time to time with all due diligence to complete the surveys and mark out the reservations as aforesaid, in the most convenient parts of Our said Province; and you are from time to time to report the manner, extent and situation of such reservations; and you are further directed to direct Our Surveyor General not to certify any plots of ground ordered and surveyed for any person or persons in order that grants may be made out for the same, until it shall appear to him by certificate under the hand of Our Surveyor General of Woods, or his deputy, that the land so to be granted is not part of nor included in, any district marked out as a reservation for Us, Our heirs, and successors, as aforesaid for the purpose hereinbefore mentioned; and in order to prevent any deceit or fraud being committed by the persons applying for land in this respect, it is Our will and pleasure that in all grants to be hereafter made for lands within Our said Province of Upper Canada, the following proviso and excep-

tions be inserted—that is to say—“And provided also that no part of the parcel or tract of land hereby granted to the said _____ and his heirs, be within any reservation heretofore made and marked out for Us, Our heirs and successors by Our Surveyor General of Woods, or his lawful deputy, in which case this Our grant for such part of land hereby given and granted to the said _____ and his heirs forever as aforesaid, and which shall, upon a survey thereof being made, be found within any such reservation, shall be null and void and of none effect, anything herein contained to the contrary notwithstanding.”

PROVINCIAL REVENUE FROM FORESTS.

The earliest step towards making the forest resources of the Province a source of revenue and so securing to the public a share of the wealth drawn from the public domain was taken in 1826. Previous to this date, as has already been mentioned, the only persons authorized to cut timber on the public lands were the contractors for the Royal Navy, or those holding licenses from them. It is hardly surprising that this monopoly, from which the people derived no benefit, was continually infringed upon by unlicensed lumbermen, who pursued a very active and profitable illicit trade, despite all attempts of the officials to suppress it. The manifest unfairness of the system, both to the general public and to the persons desiring to engage in lumbering, but debarred from doing so in a legitimate manner, led to the termination of the contractors' monopoly, and the inauguration of a system under which any one was at liberty to cut timber on the ungranted lands of the Ottawa lumber region, on payment of a fixed scale of rates to the Crown. The following Proclamation, issued by Sir Peregrine Maitland, Lieutenant-Governor of Upper Canada, announced this important change:—

UPPER CANADA.

P. MAITLAND,

Lieutenant-Governor.

George the Fourth by the Grace of God, of the United Kingdom or Great Britain and Ireland, King, Defender of the Faith.

To all to whom these presents shall come Greeting:

Whereas for the more effectually preventing the recurrence of such abuses as have heretofore prevailed in the prosecution of the trade in timber in the parts of this Province, bordering on the River Ottawa, and to the end that the public interest may be more certainly advanced, the commerce in that important article of exportation the better regulated, and more equal justice observed with regard to all our subjects desirous of participating in the said trade;

We have thought fit to order and direct that, until our pleasure herein be further made known it shall and may be lawful for all our subjects inhabiting our Provinces of Upper and Lower Canada, freely to enter into our woods and forests in such parts of our said Province of Upper Canada, situated along the banks of the River Ottawa, or upon the banks of the waters running into the said river, and a convenient distance from the same, as shall not have been surveyed and divided into concessions and lots, and to cut and carry away such oak and pine timber as may be fit for the purpose of exportation.

Timber Dues.

Provided always nevertheless, that in the consideration of the authority and permission hereby given, the several rates and duties hereinafter specified, shall be paid to Us, our Heirs and Successors, (that is to say) upon every thousand feet of oak timber, the sum of six pounds and five shillings, being at the rate of one penny, half penny per foot. Upon every thousand feet of red pine timber, four pounds three shillings and four-pence, being at the rate of one penny per foot. Upon every thousand feet of yellow pine timber two pounds one shilling and eightpence being at the rate of half penny per foot. Upon saw logs of the proper length to be cut into deals, twopence upon each log. And upon every thousand of standard staves, four pounds one shilling and eightpence, which duties are to be paid in lawful money of our said Province of Upper Canada, and to be levied and received by such persons as We shall for that purpose appoint by Commission under the Great Seal of Our said Province; and at such place or places on the said River Ottawa as we shall declare through our officer to be appointed as aforesaid to be most fitting and convenient.

Diameter Limit.

Provided always, that for the better preventing the said timber being cut before it has attained a suitable growth, double the amount of duty herein specified shall be charged upon all such timber as shall not square more than eight inches. And it is further our Will and Pleasure that all such timber or wood which shall have been cut as aforesaid upon our unconceded lands in Upper Canada, upon which the duties shall not be paid, when exacted by Our Officer so to be appointed as aforesaid, shall be seized and detained to Our use as forfeited.

Old Licenses Exempt.

Provided always, nevertheless, that all persons properly authorized by or under Our license granted in manner heretofore used to cut timber in Our said Province, shall be permitted to carry away and export the same, to such extent as their licenses may specify, without the exaction of any rate hereby imposed, and that all such timber as may have been heretofore cut upon Our unconceded lands as aforesaid, without Our express license, may upon payment of the duties hereby specified, be suffered to pass through Our said Province of Upper Canada.

In testimony whereof, We have caused these Our letters to be made patent, and the Great Seal of Our said Province to be herein affixed. Witness Our trusty and well beloved Sir Peregrine Maitland, K.C.B., Lieutenant-Governor of Our said Province, and Major General commanding Our forces therein at York, this third day of May in the year of Our Lord one thousand eight hundred and twenty-six, and in the seventh year of Our Reign.

P.M.

By His Excellency's Command,
J. B. Robinson, Attorney-General.
D. Cameron, Secretary.

The following year Peter Robinson was appointed by the Royal Commission Surveyor General of Woods and Forests in the Province of Upper Canada, and received detailed instructions from the Commissioners of the

Treasury as to the course to be pursued in dealing with the timber on the Crown Lands.

He was directed to make a survey of the woods and forests of the Province in order to ascertain in what districts there might be any considerable growth of masting or other timber fit for use of the navy; and also in what districts there might be any considerable quantity of other descriptions of timber. Evidently the Commissioners of His Majesty's Treasury, in cutting out Mr. Robinson's work on this extensive scale, had but a hazy idea of the Canada of 1827. After further instructing the Surveyor General to issue certificates whenever required by the Governor General or Commissioner of Crown Lands stating whether any lot or lots proposed to be sold contained any considerable timber fit either for naval or other purposes, the following directions as to the granting of timber licenses were given.

Provincial Timber Licenses.

"And, whereas, much of the timber standing and growing on the waste and ungranted lands within the said Province may not be fit and proper for the use of His Majesty's Navy, and it may be expedient that permission should be granted to His Majesty's subjects to fell the same: We do therefore require and enjoin you that you do in the month of May, in each year, make a report to the Governor or Officer administering the Government, stating the districts in which it may appear to you advisable that Licenses should be granted to such of His Majesty's subjects as may be desirous of cutting timber not fit for His Majesty's Navy, specifying the quantities which, in your judgment, may be fit to cut in each district, and the quantities for which you would recommend that licenses should be granted in the then ensuing season."

Upon the Governor signifying his approval of the granting of licenses in the districts indicated by the Surveyor General the licenses were to be disposed of by public auction after due notice by advertisement in the York Gazette and some other newspaper circulating in the Province. Each license was to be for a quantity not exceeding 2,000 feet with upset prices as follows:

Oak, per 1,000 feet	£4	3	4
Ash, elm, beech, per 1,000 feet	2	10	0
Red pine, per 1,000 feet	3	0	0
White pine, per 1,000 feet	1	10	0
Staves, per standard 1,000	1	0	0
Handspikes, standard 1,000	1	0	0
West Indian staves and other timber, per 1,000 ft.	1	0	0

Time Limit.

The conditions of these licenses were such that the timber should be cut within nine months, otherwise the license to be void. Purchasers were required to pay for the timber cut within fifteen months from the date of license and one or more measurers of timber were to be appointed in each district to certify as to the quantity of timber cut. The Surveyor General was authorized to incur contingent expenses on the following modest scale:—

	£	s.	d.	
"Wages to measurers, net	12	6		per day.
Rent of an office	25	0	0	per annum.
For fuel	10	0	0	"
Messenger	25	0	0	"

Cost of Collecting Revenue.

Pay of clerks, assistants, etc., as may be necessary and as the Governor or officer administering the Government, may deem reasonable, provided that the whole of such expenses do not in any year exceed one-sixth part of the net amount which may in such year be paid to the Receiver General of the Province in respect of such licenses."

Mr. Robinson, simultaneously with his appointment as Surveyor General of Woods and Forests, on the 19th July, 1827, was also appointed Commissioner of Crown Lands. The system so elaborately framed by the British Treasury Commissioners for his guidance was never carried out or even attempted to be put into effect.

Imperial Instructions Ignored.

On arriving in Canada, Mr. Robinson found Mr. Robert Shireff acting as Collector of Timber Dues on the Ottawa River. Mr. Shireff was a pioneer of the Ottawa lumber trade and was originally appointed Collector of Crown dues on timber by Lord Dalhousie, in Lower Canada, and afterwards, on his Lordship's recommendation, received the appointment for the Upper Province. His son, Charles Shireff, acted conjointly with him without receiving any formal appointment. Mr. Robinson fell in with the system adopted by the Shireffs, who no doubt, as practical lumbermen, adopted a plan more workable in its details than the method outlined by the Treasury Commissioners.

The Surveyor General, as Mr. Robert Shireff stated, "found my son and myself acting under an arrangement made directly by the Government and he did not feel called upon to interfere with it further than to give each of us as his agents, authority to seize any timber that might be found cut without license, and giving us also from time to time such instructions as appeared to be necessary."

First Receipts.

The first receipts by the Government of Upper Canada from timber licenses were in 1827, when the sum of \$360 was realized from this source. In 1828 the proceeds of timber licenses was \$3,134 and in 1829, \$2,237.

Hon. Robert Baldwin Sullivan, in a statement as to the management of the office of the Surveyor General of Woods and Forests, made in 1840 in connection with the investigation into the business of the Public departments undertaken at that time, says, respecting the system of licenses and collection of dues as managed by the Messrs. Shireff:—

"In the summer or autumn of one year the persons wishing to engage in lumbering applied for a license to cut timber, stating the quantity proposed to be cut, upon which a license issued in the form hereto annexed, marked 'B,' the lumberers paid to the Collector 25 per cent. as an advance upon the Crown dues, and entered into a bond, a printed copy of which will be found in the appendix 'C.'

"In the ensuing summer the timber (having been cut and got out in the winter) arrived in the Chaudiere Falls at Bytown, where it was measured and an account taken of the contents of the several rafts, which then proceeded to Quebec.

License for Quantity.

"The parties cutting the timber were not required strictly to confine themselves to the quantity specified in the license, and therefore as it was

plainly their interest to advance as little money as possible on taking the license out, the quantity cut greatly exceeded that for which the licences were given.

"This was productive of no actual loss to the Government as the whole of the timber was paid for at Quebec.

"When the timber arrived at Quebec, Mr. Charles Shireff was in the habit of proceeding thither to collect the Crown dues, and upon his own authority, introduced a system of taking mercantile bills in lieu of the bonds originally given.

"The purchasers of the timber being generally wealthy merchants, the personal security for the payment of the duties was increased rather than diminished by substitution of the security of the Lower Canada merchants for that of the lumbermen, and although strictly speaking money ought to have been insisted upon, I am not aware of any very material loss which has occurred from the system of taking bills, at the same time it must have been a great convenience to the merchants not to be called upon for money until they had an opportunity of shipping the timber and drawing on London against the proceeds."

Lax Methods

The outcome of the system was unfortunate and entailed a considerable loss to the Province. The Shireffs, being left to manage the collection of dues practically in their own way without any regular or efficient Government supervision, in the year 1831 appointed Jones, Murray & Co., Quebec, a branch of the Montreal house of Horatio Gates & Co., reputed to be the most wealthy merchants in Canada, as their agents to make collections. By the failure of these firms after they had been some years acting in this capacity, and other irregularities arising from the business complications in which the Shireffs were involved, a shortage of several thousand pounds in the returns of money collected for timber dues was occasioned.

The laxity of administration which rendered such a condition of affairs possible in the management of the Woods and Forests Department was typical of the entire executive system of the period. The abuses of the Government were specially noticeable in connection with the disposal of the Crown domain.

In defiance of both the letter and the spirit of the official instructions repeatedly issued by the Home Government and of all sound principles of national economy, a system of reckless and profuse alienation of the public resources had come into vogue, which seriously retarded the settlement and development of the country, discouraged productive enterprise, and by the impoverishment and discontent which resulted, contributed much to swell the volume of popular disaffection towards the local governing class, which culminated in the Rebellion of 1837. The exhaustive investigation made by Lord Durham into the causes which led to that ill-fated outbreak, fully exposed the extent of the mis-government and corruption which had prevailed for many years, and the prodigal manner in which the natural resources of both Provinces had been wasted by the officials entrusted with their management. The abuses obtaining in connection with the disposal of public lands have so intimate a relation to the question of lumbering regulations and the general conditions of the lumber industry during the ante-Rebellion era, that many of the facts detailed in the evidence appended to Lord Durham's celebrated report, as well as some of the conclusions embodied in that epoch-making document, are directly pertinent to the matter in hand.

Public Lands Administration.

Hon. Charles Buller, Commissioner of Crown Lands for Lower Canada, who was commissioned by Lord Durham to investigate the manner in which Crown Lands had been disposed of, thus speaks of the systematic disregard of the instructions issued by the British Government officials.

"It is true that while in name the property of the Crown was under the control of an English Minister, these lands have been in effect administered by colonial authorities for purely colonial purposes. It was indeed impossible that it should be otherwise. The execution of the instructions from time to time issued by successive Secretaries of State, or Lords of the Treasury, has been of necessity entrusted to those who in the colonies were the peculiar representatives of the English Crown; the Governor acting with the advice of his Executive Council. But the power nominally given to the Governor vested in effect entirely in his Council; and the members of that Council being resident in the colony, having interests of their own to promote, or friends whom they desired to benefit, or it may be enemies whom they were willing to injure, have uniformly exercised their power for local or personal objects, unchecked by a control which in this respect could only be nominal."

Land Grants.

The main abuse from which the country suffered during the period of maladministration was the granting of wild lands in large tracts, under one pretext or another, to individuals or companies, who had no intention of settling on or improving them, but simply held them for the rise in value which they anticipated as the result of opening up the country.

The system of granting wild lands was so frequently altered, and the conditions as to settlement or payment of fees so various owing to the different classes of claimants, that it would be a profitless undertaking to attempt to follow the numerous changes in the regulations in Upper Canada and Lower Canada, more especially as varying methods were often in operation at the same time. But under whatever regulations were in force, and despite occasional attempts to restrict the tendency to the lavish granting of large areas without guarantees for their improvement, the practice was continued under one pretext or another.

When the country fell into the hands of the British, extensive grants were made, some in free and common socage, according to the English land tenure and others in fief and seigniory in the same manner as those made by the French prior to the conquest. The influx of U. E. Loyalists at the close of the American war of Independence was followed by an increased number of land grants principally in the part of the Province which subsequently became Upper Canada. After the separation of the Provinces in 1791, fresh instructions were issued by the Home Government, the chief object of which was to provide against the evils resulting from excessive grants to individuals, which established 200 acres as the limit of a grant. Certain duties of settlement were attached to every grant, in default of which the land granted was to revert to the Crown. The Governor, however, possessed the power to make an exceptional addition to the grant, and this power appears to have been so freely and frequently exercised as practically to nullify the restriction as to the area to be granted.

Leaders and Associates.

In Lower Canada a method by which the law was ingeniously evaded and influential persons enabled to secure the title to very extensive areas speedily came into operation. It was known as the system of leaders and associates. The individual who was to reap the benefit of the transaction undertook the settlement of a township or smaller area. As leader he secured the signature of a number of other applicants for land, termed associates, who were supposed to be desirous of settling in a body upon the land. Each name represented 1,200 acres of land and when a sufficient number of names had been obtained, the requisite official formalities were complied with and the patents issued. The associates then for a trifling money consideration conveyed their lots to the leader. The latter usually took care to assure this by having each associate sign an agreement, simultaneously with the petition for a grant, binding himself to convey to the leader from 1,000 to 1,100 acres in consideration of the trouble and expense of procuring the survey and grant. The remaining 100 to 200 acres was afterwards conveyed by the associates for one or two guineas as the case might be, which was the real consideration for the use of their names. The system was so open and generally recognized that blank forms of such agreements were printed and publicly sold by the Quebec law stationers.

Mr. Buller states that during the administration of one Governor, Sir R. S. Milne, and under the same six members of the Executive Council who constituted the Land Board, 1,425,000 acres were granted to about 60 individuals.

Lavish Grants.

"The profusion of this land granting Board was rewarded by the Duke of Portland by grants of nearly 120,000 acres of land, rather less than 48,000 being granted to the Governor, and rather less than 12,000 acres to each of the Executive Councillors of which it was composed.

Several of the Executive Councillors themselves figure in the list of "leaders" of townships.

The system was introduced into Upper Canada, but never fairly established. Some ten townships were granted in this manner, but the rush of applications was so great that the Council was induced, not only to abandon the system, but to rescind the grants made, giving each leader who attempted to fulfil the conditions of the grant 1,200 acres. Mr. William Berczy, to whom the township of Markham had been assigned, and who had acted in good faith in actually settling a body of immigrants on the land, was ruined by the action of the Council in rescinding the arrangement.

Grants of 1,200 acres each were made to individuals of favored classes, including magistrates, barristers, and executive and legislative councillors who received as much as 5,000 acres each, with additional grants of 1,200 each to their children. From 1791 to 1804 these grants were altogether gratuitous, with the exception of fees sufficient to compensate the officials concerned in passing the grant for their trouble.

In the course of the latter year a scale of fees, proportioned to the extent of the grant, was introduced by the order of the Governor-in-Council, upon the payment of which almost anyone was at liberty to obtain a grant. Privileged persons, such as U. E. Loyalists, militiamen, etc., were exempt from any payment. In 1818, in addition to fees, the performance of set-

tlement duties was required. Changes in the system were made from time to time, generally in accordance with regulations or instructions issued by the Home Government, with the object of checking the prevailing laxity, and securing some substantial return for the lands granted.

When Hon. Peter Robinson was appointed Commissioner of Crown Lands in Upper Canada in 1827, he was instructed by the Lords of the Treasury that all public lands were to be sold by auction, and to be paid for by instalments without interest.

The Canada Company.

This system was slightly modified in 1833 by requiring the payment of interest on unpaid portions of the purchase money. The ill success of the Government land policy as a means of promoting settlement induced them in two conspicuous instances to delegate to others the disposal of large areas of the Crown Domain. An extensive tract in the western portion of the Province was placed under the entire control of Colonel Talbot, and the whole of the Crown reserves, and 1,100,000 acres in one block were sold to the Canada Company.

Clergy Reserves.

The evils resulting from allowing vast areas to fall into the hands of speculators who made no improvement was further aggravated by the policy of setting apart Crown and clergy reserves, the latter constituting nominally one-seventh of the entire area, but frequently in practice amounting to a much larger proportion. The result was to discourage the settler from making a home in the wilderness on account of the large tracts held for speculation, and where the improvements dependent upon co-operative labor could not be undertaken. The Government policy, while it entailed unnecessary hardships and inconveniences upon the settlers, did not in the end benefit the favored classes who were permitted to monopolize extensive areas of land with an eye to ultimate profit. The conditions of occupancy had been made so onerous that there was no sale for the property they had regarded as an easily-acquired source of wealth. On this point, Mr. Buller says:—

“Even during the period, however, within which these grants were made, the grantees began to discover that the very great facility with which land could be acquired rendered its possession well nigh valueless. To settle their grants was impossible without a large immediate outlay, for the purposes of affording settlers the means of communicating with each other and with a market. This work, however, could be undertaken by no one individual with effect, unless the other grantees, across whose lands the road must pass, joined in the work, and even had this been done the practice of making Crown and clergy reserves, and thus withholding from settlement two-sevenths of every township, imposed upon the proprietor of the remaining land so much additional expense for which he could never expect any return. The grants, too, were so utterly disproportioned to the population and wealth of the Province, that even if all the grantees had set to work in good faith to settle their lands according to the terms of the grant, they must have been stopped by their inability to obtain settlers.”

This was written more especially with reference to the land practically locked up from settlement in Lower Canada by the operation of the system of leaders and associates, but it was equally true of the results obtained in Upper Canada by the practice of profuse and indiscriminate land granting. Concerning the extent to which the land of the latter province had been parted with by the Government in excess of the demands for settlement, the same writer says:—

"Perhaps, however, the most striking proof of the early improvidence of the Government in its disposal of the waste lands in the Province, is to be found in the fact, that from 1763 to 1825, during which period the population had slowly grown up to 150,000 souls, the quantity granted or engaged to be granted by the Crown was upwards of 13,000,000 acres, while during the thirteen subsequent years, in which the population increased from 150,000 to 400,000, the quantity disposed of, including the sale of the Clergy Reserves, is under 600,000 acres. A fact such as this needs no comment."

Timbered Land Grants.

The bearing of this condition of affairs upon the lumber trade, and the management of the forests remaining in the hands of the Crown as a source of revenue, can be very easily appreciated. The land alienated in such extensive areas, far beyond any possible demand for settlement for many years, was in many instances covered with valuable timber. Those engaged in lumbering operations speedily discovered that in many cases it was a good deal more profitable to buy wooded land than to pay even the moderate price charged for timber licenses.

The quantity of cheap unimproved land in the market and the readiness with which grants were obtained, seriously diminished the revenue from licenses, induced reckless and improvident methods of lumbering, and made it profitable to buy land for the sake of stripping it of the growing timber and leaving it waste and unproductive. The principle embodied in repeatedly issued instructions from the Home Government of setting aside permanent forest reserves and confining grants for settlement to such lands as were adapted for agriculture, having been disregarded, much of the area covered by the extensive grants made was capable of producing nothing but timber to advantage and once denuded became practically valueless, until the slow processes of nature should have renewed the forest vegetation.

A few extracts from the evidence taken before the Assistant Commissioners of Crown Lands and Immigration in 1838 which furnished the basis for the Hon. Charles Buller's report, indicates how injuriously the abuse of the land granting system affected the public interests, both in reference to the revenue from timber licenses and the preservation of the forests. They also comprise much valuable information as to the general condition and prospects of the lumber trade at that period. The evidence is given in the form of question and answer, the following being taken from the testimony of John Davidson, one of the Commissioners of Crown Lands for Lower Canada, in relation to matters in that Province.

Land Cheaper than Timber.

Q. "According to the price required for timber licenses under the Treasury instructions may it not be cheaper to purchase land for the sake of the timber merely, than to pay for a license?"

A. "It may be so, and an instance came to my knowledge of an attempt of the kind in the newly surveyed township of Wakefield, which I however defeated by directing the agent not to accept bids, unless from persons whom he believed to be intending settlers."

Q. "Have you then the power of rejecting an offer made to purchase land made at a public auction?"

A. "Under the conditions of sale publicly read by the agent no sale is valid until confirmed by the Commissioner of Crown Lands."

Q. "Do you imagine any land has been purchased with this intention?"

A. "I could not say that no land has been purchased with this view, but no sales have been made in surveyed townships. I cannot bring myself to believe that they have been made to any great extent."

Q. "Have you not reason to suppose that the large purchase of 90,000 acres to which you have referred in Gaspé, was made with this view?"

A. "It was avowedly so, I was myself informed so by the purchasers."

Q. "What was the price at which this land was sold?

A. "Varying from 1s. 8d. to 4s. per acre."

James Hastings Kerr, a land agent, gave very explicit evidence as to prevalence of the practice of buying land solely for lumbering purposes. Some of the more striking portions of his testimony are here reproduced.

Q. "Have you had an opportunity of acquiring information as to the disposal of timber in the Province (Lower Canada) by the Crown?"

A. "I have."

Q. "Does the system appear to you to be a good one?"

A Bad System.

A. "It does not. It does not yield that revenue to the Crown which it ought in fairness to do, and which I believe might without injury to the dealer in timber be easily derived from it. The practice within these three years has been for the Crown to dispose of licenses to cut timber at public sale by tender and overbid. The upset prices on timber are determined by the Governor, upon the recommendation of the Commissioner of Crown Lands, and were until last year as follows:—White pine square timber, $\frac{1}{2}$ d. per foot; red pine, 1d. per foot; white pine logs of 12 ft., for deals, 4d. each; spruce pine logs of 12 ft. for deals, 2d. each; red pine logs, $7\frac{1}{2}$ d. each. At the sales of last year the price of white pine logs was increased to 5d. and spruce to $2\frac{1}{2}$ d. This price is even now much less than the Government might fairly ask not only in proportion to the selling price of that timber in England, but also to its value in the Northern Continent of America. At a very early period it is certain that there must be a great demand in the United States for Canadian pine and spruce timber."

Q. "But the prices you have named are only the upset prices for the tender?"

A. "I know of no case where an overbid was made upon the tender, except in one instance, and that was only by mistake."

Q. "Then in point of fact there is no competition at the sale?"

No Competition for Timber Limits.

A. "None. There is a perfect understanding among the buyers that none of them shall bid more than the upset price."

Q. "So that in reality the prices called upset prices are fixed prices?"

A. "They are."

Q. "And are in your opinion too low, having reference to the value of the timber in the markets of Canada, Britain and the United States?"

A. "Decidedly so."

Q. "You believe that there will occur soon in the United States a great demand for Canada timber; upon what grounds do you form that opinion?"

U. S. Timber Supplies.

A. "I visited the United States in 1836 for the express purpose of ascertaining at the ports of New York and Boston, what encouragement there might be for the importation of manufactured Canada timber, and also with a view to ascertain what supply of pine and spruce timber might yet remain in the United States. With the exception of the State of Maine to the North upon our own border, and of Georgia to the South, at a great distance from us, which latter produces an article of very inferior quality, I became satisfied from very careful inquiry that very little timber of that sort remains in the States generally, and that even with the two exceptions I have named, the supply will be exhausted in a few years, provided that the demand continues to increase as it has done for many years past, along with the progressive prosperity of the Americans."

Q. "Is the quantity of the best kind of pine, spruce, and oak timber, the property of the Crown of this Province, very considerable?"

A. "I believe it to be so, particularly in the country bordering on the Ottawa, the northern shore of the St. Lawrence, a great distance on the shore of the Saguenay and its tributaries, on the north shore below Quebec, and in the district of Gaspé; sufficient in fact to supply the demand of the United States for many years to come, and if not sold under prices such as might easily be obtained, if better communication was opened with the United States, as to produce a very large revenue."

Q. "Even at the present low rate of timber licenses, is it not often more advantageous to purchase the land where the timber is growing, than to purchase a license to cut the timber upon it?"

License vs. Purchase.

A. It is so decidedly upon well-timbered tracts. I have been employed myself to purchase land with this view. It may be conceived that this is the case when in the districts where land is purchased with this object, the price of a license would amount on the average to about 6s. 8d. per acre, and the average price of land is only about 3s. 2d. per acre. You therefore get your timber at less than half price, and have the land remaining when the timber is cut. For example, last year a saw-mill proprietor had cut timber upon a 200 acre lot in which I was interested, in one of the townships south of St. Lawrence. I seized the timber which he had cut, and entered into an agreement with him, by which I received fully 10s. an acre for the trespass upon the timber, allowing him to take all he had actually felled."

Q. "What is the upset price of Crown Land in that township?"

A. "Four shillings. I bought for myself and others all the Clergy Reserves then open for sale in that township in 1836, amounting to about 1,800 acres, at an upset price of 4s. an acre."

Q. "If such be the case, however, any such rise as you appear to contemplate in the price of timber licenses, ought to be accompanied by a corresponding rise in the price of the wild land of the Crown?"

A. "Undoubtedly so."

These utterances, like those which follow, are alike interesting from the historical point of view and significant in their bearing upon the existing situation, as showing how even at that comparatively early date, the American demand for the product of Canadian forests had become a prominent factor in determining the value of our natural resources. When the near

exhaustion of the American timber supply is spoken of, it must be borne in mind that the march of Western settlement and the development of methods of transportation had not proceeded far enough to render the pine forests of Michigan and the other wooded areas of the American Northwest available as a source of supply. It is none the less instructive to note, that far-seeing and experienced practical men were beginning to realize that the necessarily increasing timber and lumber requirements of the Eastern States, with their rapidly growing population, should be taken into account in fixing the price of timber-bearing lands so as to secure the increment to the public.

Thos. Allen Stayner, Deputy Postmaster-General for British North America and a large landed proprietor in both Provinces, replied as follows to the question as to what value should be placed on the wild lands of Lower Canada:—

"Besides the price of lands in the United States I must, in answering this question, have regard to the large quantities of land in the Province held in private hands, much of which is choice land, and in locations most favorable for settlement. There are, perhaps, a million and a half acres of wild land in the possession of individuals, many of whom would be willing to sell at what would be called a low rate for cash, say from 4s. to 7s. 6d. currency an acre. While so much land is wild in this way, it will naturally influence any arrangement for the disposal of the waste lands of the Crown.

"Wild lands vary in value very materially as well as from the quality itself, as from its situation; but there is also another circumstance connected with the question of fixing the value upon waste lands of the Government, which it may be well to bear in mind, that is the timber upon it.

American Investors.

"Until very recently, the timber as an article of commerce was not taken into consideration, either by Government or private holders, but it is now otherwise. Our American neighbors have discovered, to their astonishment, that their own resources for pine timber are nearly exhausted, and they are looking with great interest to the lands in Lower Canada and New Brunswick, which possess that valuable article. In the year 1835 speculators from the States of Maine and New York came into the Province and purchased about a million acres of land said to be wooded with pine or spruce; and there is no doubt but for the financial difficulties which befel the whole of the United States at the close of the year 1835 and commencement of 1836, much more extensive acquisitions of pine and spruce lands would have been made by the Americans; the disposition to acquire those lands is only temporarily suspended, and it is quite probable that in four or five years more the passion will return as strongly as ever.

"Now, according to the scale by which the Americans estimate such lands, they may be considered as worth from two to six dollars an acre, merely for the timber. The question may therefore be, whether this consideration is to constitute an element in the scheme to be devised, and if so to what extent? It should be borne in mind also, that the land most valuable for the timber is seldom of great value for agricultural purposes. Setting aside for the moment the pine and spruce lands, I do not think that a higher rate than 7s. 6d. currency an acre can be put upon the waste lands of the Crown."

The evidence of Charles Shireff, the former agent for the collection of the timber dues on the Ottawa, corroborated the testimony above cited as

to the prevalence of the practice of buying timbered lands instead of taking out licenses, and the resultant loss to the revenue.

Q. "Does not the present facility of obtaining large blocks of land, and at low prices tend to diminish the amount of this revenue by making it more advantageous to individuals to purchase land for the sake of the timber only, than to pay for licenses?"

A. "I should say so. Cases have occurred in which land has been bought merely for the timber, upon a calculation, of course, that by this means the timber would be obtainable at a cheaper rate than if it had been cut under license. I can mention that of a company of Americans, who purchased from private individuals some thousands of acres in the township of Onslow, at the rate of, I think, 10s. per acre, which I do not conceive could bear any proportion to the value of the timber. Many similar cases, though to a smaller amount, have occurred within my knowledge; and the temptation to do this was very great, because when the purchaser had paid the first instalment and obtained his location ticket, he could proceed to cut the timber, and the only penalty for not paying the other instalments was the resumption of the land, about which he was very indifferent. This was unfair to those who cut timber under the licenses."

Present License System Advised.

Q. "Has any method occurred to you to prevent the practice?"

A. "The only method that has occurred to me is that Government should hold these lands which are generally unfit for settlement and merely sell the timber upon them."

According to a statement made at this investigation by Richard Hill Thornhill, Chief Clerk of the Crown Lands Office for Upper Canada, the gross amount received by the Government of the Province in timber duties from the appointment of the Surveyor General of Woods and Forests in 1827, up to January 30th, 1838—a period of about ten years and a half—was £58,085, 4s. 11d. exclusive of defalcations amounting to upwards of nine thousand pounds. Hon. Charles Buller's report on the Public Lands and Emigration, published as an appendix to Lord Durham's report, presents the following conclusions based upon the large volume of evidence presented during the investigation, the general tenor of which may be gathered from the excerpts above quoted.

After briefly reviewing the timber policy of the earlier days of the Province, and the then recent attempts to derive a revenue from the issue of licenses to cut timber, Mr. Buller goes on to say regarding the forests:

"I was unable to obtain any accurate information as to the probable value of this property. From the evidence, however, of Mr. Kerr and of Mr. Shireff, it appears that the quantity of timber upon the waste lands of the Province is practically unlimited, and that, independently of the consumption of this article in England, there exists at present a demand for pine timber in the Northern and Western States of the Union, which may be expected to experience a very rapid increase, and which can only be supplied from the British North American colonies.

"From the evidence of Mr. Kerr and Mr. Davidson and others, it appears that the revenue which, under a wise and careful system of management, might have been derived from this property, has been needlessly sacrificed by the practices adopted in the disposal of public lands. The value of the timber upon an acre of land at the price of government licenses, is frequently more than ten times greater than the amount required to be paid, in order to obtain possession of the land upon which the timber is grow-

ing. Payment of the first instalment of the purchase money is alone necessary for this purpose, and before the second instalment is due or any measures are adopted to enforce payment, the timber may be cut down and the land abandoned. To what extent this has been the case it is difficult to determine; but there is no doubt that very large tracts have been purchased for the sake of the timber merely; because the whole purchase money if paid, has been very far less than the price of timber licenses, and because the land would remain in the possession of the purchaser after the timber had been cut. Besides this cause of defalcation in the revenue that might have been derived from this source, there has been no proper inspection on the spot, so that the quantity of timber cut has been very far greater than that for which a license has been obtained.

Land Sales for Cash Only.

"The plan which I have proposed of selling the land at a fixed uniform price, and requiring the payment of the whole purchase money at the time of the sale, will prevent to a very considerable extent, the purchase of land for the mere sake of the timber. As the land upon which the most valuable timber grows, is generally of an inferior quality of soil and of no value for agricultural purposes, it may be expected that but little of it will be purchased, and that the whole timber fund will be derived from the sale of licenses. It will therefore be expedient to establish an efficient system of supervision in all the timber districts and by comparing the returns made by the district inspectors of the quantity of timber cut, with the entries at the Custom House of the quantity of timber shipped, some security may be obtained against the frauds which are now practised in respect of this property.

"It is suggested by Mr. Kerr, that the present price of timber licenses is too low, having regard not merely to the value of the timber in the English market, but also to its price in the United States. Although disposed to concur in this opinion, I do not feel myself warranted in recommending any advance in that price at present upon the only information I now possess, and especially considering the uncertainty which is felt to be attached to the continuance of the present timber duties in England. This is one of the matters which must be left to the special authority which I shall subsequently recommend, to determine from further and more accurate inquiries.

"The present average annual amount produced by the sale of timber licenses in all the colonies appears to be about £24,000, but there seems no reason to doubt that under an improved system of inspection and management the amount might be greatly increased."

Disposal of Revenue.

The amounts received by the Government as timber dues as well as the considerably larger sums accruing from the sale of public lands were regarded as entirely at the disposal of the Crown, that is to say, the administration of the day without responsibility to Parliament as to their expenditure. They were classed with some other items as "casual and territorial revenue," and kept entirely apart from the funds under control of the Legislature. The introduction of the system of payment for timber licenses almost simultaneously with that of the sale of the land, very greatly increased the revenue of the province and at the same time aroused strong political feeling by reason of the questions involved as to the management and expenditure of this fund. The abuses which speedily arose from the

irresponsibility of the executive in the handling of the casual and territorial revenues did much to intensify the popular irritation which found vent in the outbreak of 1837. The principal causes of complaint in connection with the administration of this fund were set out with considerable fulness of detail in a series of resolutions passed by the Upper Canadian House of Assembly on March, 18th, 1829, some of which are reproduced.

"Resolved, that the possession of Revenue by the Executive to defray all expenses of the Civil Government, independent of Parliament, is inconsistent with public liberty.

"Resolved, that it appears from the message of His Excellency that the whole of the Estimate for the Civil List can, this year, be defrayed from the Crown Revenue and that the expenditure of about £10,000 per annum, which was defrayed till the year 1827 by grants of the Imperial Parliament, is now also transferred to what is called the Territorial revenue of the Crown, arising from the Canada Company Agreement, over the appropriation of which monies it is denied that the House has any superintendence or control.

"Resolved, that from the accounts in detail of the appropriation of the sum of £10,825 as furnished this House by His Excellency, a copy whereof is annexed, it appears that by far the greater part of that sum has been improvidently misapplied, because independent of the pretensions to a monopoly of the Clergy Reserves the large sum of £2,800 is allotted to the Clergy of the Protestant Episcopal Church, although that church forms a comparatively small proportion of the Christians in this Province, and because there are various pensions and allowances to persons who ought not to be burdens on this struggling Province; a salary to a naval officer as a sinecure, a salary to an agent in England, utterly unknown by name, character, duty, service or usefulness to this House or to the country, and other salaries and allowances improvidently paid (with the exception of the Lieutenant-Governor and Judges) to public officers for whom has been provided by this House of Assembly, independent of these extra allowances, such ample salaries and contingencies in years of past extravagance that they ought, in justice to the condition of the province, to be greatly reduced.

"Resolved, that the Provincial Executive have heretofore, in the appropriation and expenditure of public monies, violated that economy which, is in justice due to the people from whom they are raised, have abused the application of the fund improvidently granted by the 56th Geo. III., chap. 26, in aid of the Civil Government; have granted pensions and multiplied offices at the public expense without consent of Parliament, and have incurred and continued wasteful charges and annually increasing expenses in the administration of Justice and in the other departments, under an inveterate system of Executive patronage at the sacrifice of public economy; all which evils have heretofore existed from injuriously infusing into the country and even into the Legislature a spirit of subserviency incompatible with the liberties and interests of the people."

The law of England exempting the subject from all taxes not imposed with the consent of Parliament and securing Parliamentary control over all expenditures, was declared to be the "ancient, common and fundamental law issuing from the first frame and constitution of the kingdom," and it was claimed that as the Provincial Legislature had adopted the laws of England as the rule for decision in all controversies relative to civil rights, that corresponding powers and duties to those inherent in the British Parliament appertained to the provincial body.

This clear and forcible presentation of the case produced little if any immediate effect. The evils complained of were continued despite all

remonstrances. In 1835 a select committee of the House of Assembly on grievances, of which William Lyon Mackenzie was chairman, presented a report setting forth the administrative abuses of which the public complained, the following paragraph of which indicates how the absolute control of the executive over the expenditure of a large and increasing portion of the public revenue rendered the Government completely independent of the people's representatives:

"The almost unlimited extent of the patronage of the Crown, or rather of the Colonial Minister for the time being and his advisers here, together with the abuse of that patronage are the chief sources of colonial discontent. Such is the patronage of the Colonial Office that the granting or withholding of supplies is of no political importance unless as an indication of the opinion of the country concerning the character of the Government, which is conducted upon a system that admits its officers to take and apply the funds of the Colonists without any legislative vote whatever."

An agitation on similar lines was meanwhile going forward in Lower Canada and obtained such headway that in 1835 the Earl of Gosford, Sir Charles Edward Grey and Sir George Gipps were appointed as commissioners for the investigation of grievances in Lower Canada. Among the list of complaints presented to this body the question of the control of the revenue occupied a foremost place. The demands made by the House of Assembly of Lower Canada were thus summarized in the instructions forwarded by Lord Glenelg to the commissioners under date of July 17th, 1835.

"After the several gradations through which this question has passed, it has at length assumed the following shape:

The Claims of the Legislature.

"As representatives of the people of Lower Canada the House of Assembly claims the right of appropriating to the public service, according to their own discretion, the whole of the revenues of the Crown accruing within the Province. The claim extends to the proceeds of all parliamentary and provincial statutes, whatever may have been the original conditions of these grants; to the funds drawn from the sale of timber and of the waste lands of the Crown; to all fines and forfeitures, and to the income derived from the Seigniorial rights inherited by the King from his royal predecessors. In fine the authority of the Local Legislature over the income and expenditure of the Province is declared to be so extensive, as to embrace every part of that receipt and outlay, and so inalienable as to supersede even the concessions deliberately made in preceding times by the former representatives of the Canadian people."

On January 30th, 1836, Sir Francis Bond Head, who had a short time before assumed the Lieutenant-Governorship of Upper Canada, laid before the House of Assembly the instructions received on his appointment, embodying the answer of the Home Government to the representations made by the House as to the grievances requiring redress. This document in reference to the question of the control of territorial and casual revenues stated that claims precisely identical had been preferred by the Assembly of Lower Canada, and that in the instructions to the Commissioners of Enquiry who visited that Province the views of the Home Government had been already set forth.

The instructions to the Commissioners were therefore appended to the despatch as outlining a basis for the settlement of the question in both Provinces. In this paper the whole subject is treated very fully, the position taken by the Colonial Office being that it was necessary to secure the inde-

pendence of the judiciary and the principal officers of the Local Government, and that to this end official incomes should be paid, "not at the pleasure of the popular branch of the Legislature, but from adequate funds to be irrevocably pledged for that purpose."

Claims of the Crown.

It was urged that alterations on the subject of the emoluments of the chief officers of the Crown, and especially of the Governor, would be derogatory to their character. "The tendency of such controversies would unavoidably be to introduce a disesteem for those functionaries by exhibiting them in the light of pensioners on the reluctant bounty of the representatives of the people." The officials of the Local Government, it was contended, having frequently unpopular duties to perform, and being called upon to oppose the passions and emotions of the day, should be raised above all influence, and suspicion of influence, of unworthy fear or favor. They should not be looking for their subsistence to the favor of a body which necessarily reflected most of the fluctuating movements of the public mind. "Such are the principal motives," wrote the Colonial Secretary, "which induced me to conclude that the King could not consistently with the interests of his Canadian subjects relinquish, except in return for an adequate Civil List, the control which His Majesty at present exercises over the hereditary and territorial revenue. * * * A temporary cession of the revenue in return for a provision for the chief public officers of the Province for a corresponding period, would be the most satisfactory arrangement."

The despatch took strong ground against transferring from the Executive to the popular branch of the Legislature, the management of the uncleared territory. "His Majesty's confidential advisers," says the writer, "regard as conclusive and unanswerable the objections which are made to confiding the management of the uncleared territory of Lower Canada to either or both of the Houses of General Assembly, or to persons appointed by them and subject to their control. In the distribution of the different powers of the State the office of settling and alienating the uncleared territory properly belongs to the Executive Government." Any expectations

1837.

which might have been entertained of a satisfactory settlement of the difficulty on the basis laid down in the Lieutenant-Governor's instructions were speedily dissipated by the bitter controversies which shortly afterwards arose between Sir Francis Bond Head and the dominant party in the Legislature. The popular feeling of irritation was further inflamed by the arbitrary course pursued by Lieutenant-Governor Head, and culminated the following year in the quickly suppressed outbreak led by William Lyon Mackenzie, which, though an utter failure considered as a military enterprise, did much to arouse the attention of the Government and people of Great Britain to the real condition of affairs in Canada and bring about responsible Government.

In the year 1838 the Committee on Finance of the House of Assembly brought in a report on casual and territorial revenue, submitting a draft of a bill appropriating this branch of the revenue, accompanied by a series of resolutions respecting the appropriations to be made therefrom, in accordance with the plan of settlement proposed by the Colonial Office. This measure passed the Assembly but failed to become law, as it did not obtain

the concurrence of the Legislative Council. The following year, however, the subject was brought before a Joint Committee of the two Houses, and a bill to appropriate the casual and territorial revenues passed in both branches of the Legislature. The royal assent to the measure was, however, refused, but it was intimated that the objections entertained to it were such as could easily be removed.

Meanwhile the greater question of the union of the Provinces began to engross public attention. In the discussion of the subject the surrender of the casual and territorial revenues in return for the granting of an adequate civil list was one of the points insisted on by the Upper Canada Assembly. The Act of Union adopted by the British Parliament in 1840 in conferring responsible government upon the people of Canada, placed in the control of the Legislature all territorial and other revenues at the disposal of the Crown, subject to certain charges, the principal of which was the civil list for the payment of the salaries of the Governor, Judges and other officials amounting to £75,000.

UNDER THE UNION.

The system of disposing of licenses to cut timber on the Crown domain, which, as has been shown, was managed with great laxity, under the Government of Upper Canada, yielding a mere fraction of the sum which it might have contributed to the revenue under proper regulations, engaged the attention of the administration of the United Provinces at an early date. On the 30th of March, 1842, instructions as to the granting of licenses were issued by the Hon. John Davidson, Commissioner of Crown Lands, to James Stevenson, Collector at Bytown, as Ottawa was then named, with the object of ensuring greater strictness and introducing the principle of competition among lumbermen. The following are some of the more important rules laid down:

"The Licenses to be granted during the present year are to contain the same conditions as heretofore, as it respects the prices for the timber, the terms of payment, and the manner in which the timber is to be measured.

"All Licenses are to be granted for a fixed period from the date of License, after which the right of any person over the limit which it describes is to cease and determine:

To Induce Competition.

"When application is made by an individual, other than the party who occupied the limit during the preceding year, and where there is no reason or order to withhold a renewal of license in favor of the person who occupied it during the preceding year, such application shall be suspended until the first of August, unless the person who had the license the preceding year shall, in the meantime, come forward and request a renewal; then it shall be at your discretion either to dismiss the first application, or within ten days after the application of the person who worked the limit, offer it at public sale and adjudge it to the highest bidder (the party who held the license the preceding year being entitled to bid first at the upset price), with the condition that the party to whom the limit may be adjudged shall pay the auctioneer's fees, deposit one-fourth of the purchase money, and give sufficient security for the remaining three-fourths before four o'clock of the day of the sale; and in the event of his failing to do so, the limit to be assigned to the next highest bidder who can comply with the conditions of sale.

By Public Sale.

"If two or more applications be received on the same day for a limit not worked upon the preceding year, or not worked upon according to the true spirit and meaning of the license granted, the limit shall be offered at public sale within ten days after the applications are received, on the conditions stated in the previous paragraph as to auction fees, deposit and security.

"When sufficient information is laid before you to assume that the terms and conditions of the license, granted for a particular limit, have not been strictly complied with, or that the party is charged with having trespassed on the limits of others, it is at your discretion to refuse, to the party complained of, license to cut timber; but, at the request and expense of the party, you may name a D.P.S. to examine into the complaint, and if his report shall rebut the charge, the License may be renewed or one issued for some other limit.

Amount to be Cut.

"The quantity of timber to be inserted in the License, and which the parties bind themselves to take out, is to be estimated at 5,000 feet for every mile in length, and no greater extent of limit than 10 miles is to be licensed to any individual on any one place."

Wilful trespass by license holders upon Crown property not included within their limits was declared to be punishable by the cancellation of the License and the seizure of the timber so cut. District agents in surveyed townships were charged with the duty of protecting from trespass the Crown property within their agencies, the Bytown collector being instructed to furnish them with every assistance to prosecute trespassers.

The provisions above quoted for the disposal of licenses, in certain cases, by sale to the highest bidder, seem to be the earliest practical recognition of the advantages of the auction system, afterwards extended from time to time, and finally adopted altogether with such satisfactory results both to the lumber trade and the public interest, securing to the Treasury the full value of lumbering privileges, while affording exact and even-handed justice to all applicants.

The receipts of the old Province of Upper Canada for timber sales for the year 1839 were £8,244, and for the period commencing January 1st, 1840, and ending 9th February, 1841, £18,881, a difference probably due to irregularity in the methods of collection rather than fluctuations in the trade.

The timber receipts for Canada under the new regime were £37,572 in 1842, £46,301 in 1843, and £28,828 in 1844.

While, as has been shown, the British statesmen who in the early days of the colony directed, or rather endeavored to direct, the course of the Colonial Executive, fully realized the importance of maintaining timber reserves, there is little in the proceedings of the rulers of Canada under the system of responsible government to show that they appreciated, to any extent, the desirability of preserving the forests as a source of future supply. Such, in fact, was the general prevalence of the idea that the timber resources of the country were practically inexhaustible, coupled with ignorance as to the possibility of at the same time realizing a periodical crop and preserving the productiveness of the area from which it was taken unimpaired; that even had more enlightened views been held by those charged with the administration of affairs, they would have met with popular opposi-

tion and ridicule. Those who possessed some vague ideas that the work of deforestation was proceeding too thoroughly, and that it might be advisable to call a halt, were not sufficiently practical to effect any good result. One of the earliest, perhaps the very first public remonstrance against deforestation may be found in the Journals of the Législative Assembly under the date of May 11th, 1846, in the following paragraph:

"On motion of Hon. Mr. Laterriere, seconded by Mr. Tache. Resolved, that this House will on Wednesday next resolve itself into a committee of the whole House to consider whether it would not be expedient to prevent the sale of timber from off the Public Lands." All that is recorded of the discussion is the curt official entry for the following 3rd day of June to the effect that "the House accordingly resolved itself into the said committee. Mr. Hall took the chair of the committee and after some time spent therein Mr. Speaker resumed the chair." In the absence of Hansard, or even the briefest mention of the matter in the newspaper reports of the period, it may be doing Mr. Laterriere an injustice to class him with the well-meaning but unpractical people who, in the earlier days of the forestry movement, sought to "save the forests" by prohibiting all use of the axe within the limits of the area to be preserved. But the wording of the resolution certainly bears this construction.

New regulations were issued during 1846 when the following notices to applicants for timber licenses appeared in the Canada Gazette.

CROWN LANDS DEPARTMENT,

Montreal, 24th June, 1846.

Notice is hereby given that application for Licenses to cut Timber on the River Ottawa and its tributaries will be received by James Stevenson, Esquire, at Bytown until the fifteenth day of August next.

1st. No new limits will be granted exceeding 5 miles in front by five miles in depth, or half way to the next river.

2nd. Present holders of licenses will be allowed to renew them for the ensuing and two more seasons without alteration of limits, but after the 1st May, 1849, all timber berths will be curtailed to the above mentioned sizes; the present occupant having the choice of the part of his present limits which he will be permitted to retain. The surplus will be disposed of as may hereafter be determined upon, of which due notice will be given.

3rd. Licenses are not to be transferable and any subsequent attempt to infringe or evade this regulation will subject the party concerned to the forfeiture of his license and of all moneys paid on account of the same. Applicants to state whether their applications are made for themselves individually or as concerned with others or on behalf of other parties.

4th. All timber berths for which no application for renewal shall have been made by the present owners, or in regard to which the applicant shall have neglected to comply with the conditions of renewal on or before the 15th of August, shall be put up to public sale without further notice on the 1st September next, together with all other Timber Berths for which more than one application shall have been filed, to be adjudged in cases of competition to the party bidding the highest premium for the same, to be paid down at the time of adjudication.

5th. The quantity of Timber to be inserted in the License and which the parties will bind themselves to take out, is to be estimated at 1,000 feet per square mile, upon the price of which a deposit of one-fourth will be required before 4 o'clock on the day of sale; if not then paid the Berth to be adjudged to the next highest bidder or next applicant. Bonds as now

practised to be given for the remaining three-fourths, signed by the principal and two sufficient sureties within eight days after; failing which two-fifths of the deposit and license to be forfeited.

1,000 feet per Mile.

6th. It is to be understood that licentiates are to manufacture at least 1,000 feet of timber per square mile granted (if to be had within the limits), should a less quantity be made a proportionate amount of the deposit will be forfeited and the limits curtailed accordingly.

7th. After the 1st September all vacant timber berths will be granted to the first applicant on his complying with the conditions of sale.

8th. Parties applying for timber limits on unexplored rivers will be expected to furnish a sketch of the same by a sworn surveyor, connected with some surveyed or known point, and describing distinctly the point at which the limits are to commence. Should the sketches so furnished subsequently prove to be incorrect all licenses based upon them will become null and void.

9th. Limits hereafter declared forfeited for non-fulfilment of the conditions stipulated, to be adjudged to the party giving the information and proving the fact to the satisfaction of the department, or if not required by him to the next applicant.

DEPARTMENT OF CROWN LANDS,

Montreal, August 14th, 1846.

Notice is hereby given that (with the exceptions mentioned at foot) applications will be received until Thursday, the first day of October next, and Licenses granted by the various District Agents of this Department to cut Timber on the vacant Surveyed and Unsurveyed Lands of the Crown within their respective agencies.

Five Mile Limits.

1st. No new License will be granted exceeding five miles in front by five miles in depth, or half way to the next river.

2nd. Holders of Licenses will be permitted to retain their present limits until the 1st of May, 1849, on complying with the conditions of renewal, but after that period, their limits if larger will be reduced to the above mentioned sizes.

3rd. Licenses are not to be transferable without the sanction of the Department, and any attempt to infringe or evade this regulation will subject the party concerned to the forfeiture of his License and of all monies paid on account of the same. Applicants are to state whether their applications are made for themselves individually, or as concerned with others, or on behalf of other parties.

Auctions.

All Timber Berths not covered by Licenses, or for which no applications for renewal shall have been made, will be sold to applicants on the said 1st of October, and in case of competition be adjudged to the party bidding the highest premium to be paid down at the time of sale.

The quantity of Timber to be inserted in the License, and which the parties will bind themselves to take out is to be estimated at 1,000 feet per

square mile, upon the price of which a deposit of one-fourth will be required before 4 o'clock on the day of sale; if not then paid, the Berth to be adjudged to the next highest bidder or next applicant. Bonds as now practised to be given for the remaining three-fourths, signed by the principal and two sufficient sureties within eight days after, failing which two-fifths of the deposit and license to be forfeited.

Should a less quantity of Timber be made, than specified in the license, a proportionate amount of the deposit will be liable to forfeiture, and the limits to be curtailed accordingly.

Parties applying for Timber Limits on unexplored rivers will be expected to furnish sketches of the same by a sworn Surveyor, connected with some surveyed or known points, and describing distinctly the points at which the limits are to commence. Should the sketches so furnished subsequently prove to be incorrect, all Licenses based upon them will become null and void.

Limits hereafter declared forfeited for non-fulfilment of the conditions stipulated, to be adjudged to the party giving the information and proving the fact to the satisfaction of the Department, or if not required by him to the next applicant.

After the 1st of October next, all vacant Timber Berths or Tracts will be granted to the first applicant on his complying with the conditions of sale.

Districts Reserved.

The Districts excepted from the above regulations are in Upper Canada, the Bathurst and Dalhousie Districts, and that part of the Midland District lying beyond the Northerly outlines of the Townships of Sheffield, Hinchinbrooke and Bedford.

In Lower Canada all the easterly side of the River Ottawa above the Chaudiere Falls, commencing with the Townships of Hull and Wakefield, which will remain as heretofore under the management of James Stevenson, Esquire, at Bytown, to whom application to cut timber, in any of the last mentioned Districts or Tracts must be addressed.

Quantity Reduced.

N.B. In consequence of the present depressed state of the Timber Trade, the quantity of timber to be cut per square mile has been reduced for the season from 1,000 to 500 feet—upon which latter amount only the deposit will be required.

It will be observed that while the first of these notices, which applies only to the Ottawa region, absolutely prohibits the transfer of licenses; the second of a later date, which is more general in its scope and excepts the Ottawa section from its provisions, modifies this provision by requiring the sanction of the Department to all transfers. Presumably the condition was similarly relaxed in the territory covered by the first notice also, and it is also probable that the reduction of the quantity of timber to be cut per square mile was generally applicable.

The year 1845 was an exceedingly prosperous one for the lumber trade. There was a heavy demand at that time for our timber in the British market and prices were very remunerative. The quantity of timber brought to market at Quebec that year was 27,702,344 feet, of which the quantity exported was 24,223,000 feet. The temporarily favorable conditions of the trade resulted in a considerable over-production in 1846 and the year following which, coupled with a falling off in the British demand, created a serious depression in the industry.

The regulations then in force in the Crown Lands Department contributed not a little to unduly stimulate production by requiring the manufacture of a large quantity of timber on every limit, regardless of the requirements of the market or the convenience of the operator, upon penalty of forfeiture of the limit. At the same time the timber production of New Brunswick was very greatly increased, coming into competition with the Canadian output, while the general commercial depression in Britain caused a great falling off in consumption.

Lumber Trade Commission.

On January 30th, 1849, the Legislative Assembly appointed a Select Committee, composed of Mr. Scott, of Bytown; Hon. Mr. La Terriere and Messrs. Egan, Johnson, Bell, Hall, Flint and Holmes "to enquire into and report upon the state of the Lumber Trade, the cause of its present depression, the protection of the forests from unnecessary destruction, and upon all other matters connected with the lumbering interest of this Province."

The evidence taken before this committee threw a good deal of light on the condition of the trade and the particulars in which a reform of the license system was urgently required.

Over Production.

W. W. Dawson, a leading lumberman of Bytown, gave the following testimony:—"The first great blow then, which the trade received in 1846, was caused by over-production, for had the supply been in the proportion to the demand there is no reason to believe that prices would have ruled one fraction lower than they did in the previous year, nay, it is probable that they would have ruled higher, as, notwithstanding the high prices the British merchants paid for Canadian timber in 1845, they had found their dealings therein sufficiently satisfactory to induce them to increase their demand for it in 1846.

"In the two succeeding seasons, 1847 and 1848, although other causes entered into combination with it, the over-production of 1846, hanging like a dead weight on the market, still operated as a principal depressing influence. Thus in 1847, including the quantity brought to market and the stock on hand, there was a total supply of 44,927,253 feet of square timber to meet a demand for 19,060,880, and in 1848 there was in like manner a total supply of 39,447,776 feet, to meet a demand for 17,402,360. The other causes which have combined to depress the trade in the two latter years, resolve themselves, so far as we are concerned, into one, viz., a decreased demand. The causes which have led to the decreased demand we have no control over, and I shall briefly advert only to what seem to be the most apparent. In the first place our own large export of 1845 and 1846 may have tended in some measure to overstock the British market; in the next place it would appear that an enormous supply has been thrown upon the market in these latter years from the Province of New Brunswick, quite unprecedented at any former period. What influence the Baltic trade may have had I am not very clearly aware, as it does not appear that at least of square timber, there has been any great increase of the quantity thrown upon the market from that quarter. The greatest and most apparent cause of all, however, is to be found in the diminished consumption arising from the depressed state of commerce in general in Great Britain and throughout the whole of Europe.

"It is therefore clear that the depressed state of trade was solely owing to over-production in 1846, and to that primary cause combined with a decreased demand in 1847 and 1848.

Objections to the System.

"I believe that there were other causes arising out of the pernicious influence exercised over the government of the trade by the absurd policy sometimes pursued by the Crown Lands Department (as it was then conducted), the particulars of which, as far as they relate to this question, may be classed under three heads, viz.:—

1. The order to manufacture a certain large quantity of timber upon every limit, under penalty of forfeiture.
2. The threatened subdivision of the limits, and
3. The want of any equitable or decisive action on the part of the Department with respect to disputed boundaries, etc.

"The first of these speaks for itself and needs no explanation, as it is evident that those who considered their limits valuable, or had invested large sums in their improvements would rather risk the remote and at that time unforeseen consequence of overdoing the trade, than yield any just title they possessed. It is at all events impossible to deny some influence to this cause, when we find these two facts staring us in the face—first fact, the Government ordered the trade to be overdone—second fact, the trade was overdone.

"With regard to the second, the subdivision of the limits, there were indeed some who made light of or laughed at it, knowing that it would either be rescinded before it came into force, or that they could evade it, but a greater number were carried away by the idea that, as after a stated period they would have to give up a part of their limits, they ought to make the most of them while they had them, especially as the times were then good. It thus afforded an excuse for some and added stimulus to others, to increase their business; very few in the lumbering fever of that period, pausing to consider the ultimate consequence.

The Right of Might.

"The third of these causes may appear a strange one, but it is easily explained. There were cases of disputed boundaries which for want of any decisive action on the part of the Government, even when applied to by all the parties, resulted in appeals to physical force. This, of course, induced the parties who struggled for a physical superiority in these remote parts entirely beyond the reach of law, to double, treble, or quadruple the number of men they would otherwise have employed, and as such a force, when on the ground, would of course be used to the most advantage, they would thus double, treble, or quadruple the quantity they would otherwise have manufactured. That this has been the case to some considerable extent I am positively aware, as I could point to one instance in which certain parties who would not otherwise have got out but a limited quantity, but who were by this means forced into a business of half a million feet or upwards. While, therefore, the rage for lumbering consequent upon the large profits of 1844 and 1845, must be allowed to have been the main cause of the over-production, these other causes aided very materially in producing that result."

In reply to the question—"Do you conceive that there is any danger of a monopoly of licenses to cut timber on the waste lands of the Crown. What means can be taken to prevent it?" Mr. Dawson said:—

Right to Renewal.

"There is no danger of a monopoly of the waste lands of the Crown on the Ottawa, the extent being too great to permit of the possibility of such a thing, but there is danger of monopoly occurring, as it has already occurred in particular instances. The remedy is easily applied as it only requires that the title to the renewal of license should depend upon actual occupation. This has hitherto been the rule, but the standard of occupation has been too high, thereby injuring the trade materially while in particular instances the object has been defeated by making special cases in which the rule was not enforced. I think that this question might be favorably affected by a change in the present system of deposits, which would at the same time afford a very considerable degree of relief to those engaged in the trade."

Ground Rent Proposed.

"At present a deposit of one-fourth of the duty on the quantity required to be taken out, is exacted on the issuing of every license for the season's operations, the amount being remitted the next year upon the collection of the duty on the actual quantity which may have been cut. Instead of this I would propose that a ground rent of 2s. 6d. per square mile, as a final payment should be levied annually for every limit upon issuing the license for that year's business; as a preventive of monopoly I would then double the ground rent in case of non-occupation, and continue doubling it every year the limit remains unoccupied. I would scarcely venture in the present state of trade to propose the ground rent system, if it were to constitute an additional impost upon the trade, but if a corresponding degree of relief could be afforded in any other way it would be most satisfactory and efficient."

With regard to the size of the timber limits Mr. Dawson, referring to a notice published in the *Official Gazette* in 1846, that after the 1st of May, 1849, all limits of a larger extent than five miles should be so subdivided that none should exceed that size, expressed himself as follows:—

"The object of reducing the size of all limits to five miles, I believe to have been pretty much the same as that of the clause requiring the manufacture of a large quantity, viz., to make every space of five miles for which license should issue produce a raft of timber annually, a theory which, I should hope, has been sufficiently exploded by its bitter effects. When the trade is in a prosperous condition, the profits are sometimes very large, and this naturally gives rise to an excessive spirit of speculation, which speedily brings ruin upon all concerned. A wise policy, therefore, would rather supply some check upon, than add a stimulus to, this speculative spirit, by discouraging instead of facilitating and urging on an over production, especially as it is hardly possible to conceive of any danger to the opposite extreme, as the facilities will always be such in spite of any discouragement, as to keep the supply in excess of the demand."

Speaking of the system then in vogue of estimating and collecting timber dues Mr. Dawson said:

Unfair Measurements.

"Anything more unjust in its principles and application or more expensive in its operation could scarcely be invented." He proceeded to give a striking illustration of its unfairness, selecting the duties upon red pine, the principle, as he remarked, being the same as regards all kinds of tim-

ber. The amount of duty levied on red pine was one penny per cubic foot, the timber not being measured but only counted, and the amount made up from a fixed and arbitrary average of 38 feet per stick.

"The real average of the red pine rafts taken to Quebec varied from 26 feet or under to 50 feet or upwards per stick, the large being charged precisely as much duty as the small. In one instance a raft of the largest sized red pine ever seen there averaged 68 feet per stick. One of the rafts of small timber the previous season averaged 26 feet per stick.

"The owner of the large raft, assuming the duty to be a penny per foot, had exactly thirty feet in every stick for which he had to pay nothing, while the owner of the small raft had to pay for twelve feet more on every stick than it actually contained." Considering the duty as a charge ad valorem he went on to show that as the large raft was sold for 1s. 3 $\frac{3}{4}$ d. per foot, and the small raft for 5d. per foot, the owner of the former paid about 3 $\frac{1}{2}$ per cent. of the whole proceeds of his timber to the Government, while the proprietor of the small timber was taxed something over 29 per cent. on its value. This was admittedly an extreme case, but the principle which rendered such a discrepancy possible operated throughout—Mr. Dawson went on to say:

"The remedy for this, as far as making the burden fall more equally upon those paying Crown dues for their timber, is very simple, and would consist in collecting the amount according to the actual number of feet instead of on the number of pieces as now practised. . . . There is, however a more important measure in view which should supersede all the abuses of the present system, and at the same time afford a great degree of relief to the trade at large. This measure is the same as that now in force and which has been found to work so well in New Brunswick, and should consist in imposing a small duty on all timber clearing at the Custom House, which with the proposed ground rent, would stand in lieu of all present charges. One shilling per ton in this way would produce a much larger revenue than that now derived from timber."

Nearly all the lumbermen examined, including John Porter and Joseph Aumond, of Bytown, Peter Aylen of Aylmer, and Ruggles Wright of Hull, agreed in advocating a ground rent on timber limits in order to prevent monopoly, some favoring five shillings per square mile, while others were disposed to consider 2s. 6d. sufficient. They were practically unanimous as regards the injustice of the system in vogue, and the facilities it presented for fraud, while as to the size of the limits there appeared to be much difference of opinion.

William Harris, of Bytown, pointed out how the system of levying dues entailed a loss to the revenue and encouraged wasteful methods of lumbering.

Square Timber and Fires.

"After all the large timber is cut off a limit, so many trees, blocks, chips, etc., are down on the ground, that pine woods are subject to and are frequently destroyed by fire; thus young and small timber reserved in the woods is totally destroyed; whereas had the lumberman been induced to cut it in the first place by an ad valorem duty, he would avail himself of his opportunity, of his advantage to do so, for railroad framing, lath-wood and other purposes where small lumber can be employed. Under the existing system an immense revenue is lost to the Crown, and a serious drawback is inflicted on the lumberman. Under this system, as large dues are exacted for the smallest tree as the largest—a tree of 12 or 14 feet would be as expensive to cut as one of 60, which amounts to prohibition of cutting

small timber. Were an ad valorem duty imposed instead of the present dues, a considerable amount of duty for masts and spars, over the amount collected would be obtained. Instead of paying 3s. 2d. for a stick available for masts worth say £20, one-eighth per cent. should be obtained, and for a red pine spar worth £10 a like per centage, which would make a material difference in favor of revenue derivable from this source. Spruce, black birch, hackmatack for sleepers for railroads, and other small timbers would be taken also, which are now rotting in the woods. Spruce would do for booms, birch for cabinet work, and very large quantities of this species of timber is to be met with very far north on the Ottawa,

Suggested Changes.

hitherto untouched. * * * Under the present system, dealers in square timber pay 2s. 11d. for every tree—the dealer in sawed lumber 1s. 3d., making a difference in the revenue of 1s. 8d. to the tree, and frequently more, as all trees do not produce three standard logs—a loss arises to the revenue by counting logs instead of measuring them; the square timber manufacturer takes the whole of the tree, the deal manufacturer nothing but the clearest stuff, leaving all trees and parts of trees having the slightest appearance of knot or flaw in the wood abandoned to rot or fire. An advantage over the square timber maker should be had by the deal maker, inasmuch as he spends in his business in the country, more capital than the square timber maker, but not to the unfair extent now existent."

The first Report presented by the Select Committee on the Lumber Trade, considered the question of the establishment of a boom or depot at Quebec for the reception or safe-keeping of rafts on their arrival at that port, recommending such a step on the ground that the existing booms or depots were in the hands of parties interested in the shipping trade, who took advantage of their position in compelling the payment of such dues as they thought proper, and having an understanding with each other injurious to the manufacturer and restrictive of trade.

The Second Report, in which the broader question in connection with the regulations of the Lumber Trade and the cutting of timber on the public domain are dealt with, is as follows:

COMMITTEE ROOM, 18th April, 1849.

Your Committee, in the prosecution of their inquiries, have taken considerable pains to ascertain the state of the lumber trade, and the causes which have tended to its present ruinous condition. The general depression of all commercial matters, both in this Province and in Europe, has of course operated injuriously upon the trade, but Your Committee conceive that much might have been done by a more judicious management of the waste lands of the Crown (from which a large proportion of the timber taken to market is obtained) by wholesome regulations for the granting of licenses, by a more equitable exaction of duty, and by less oppressive duties upon articles imported for the exclusive use of the trade.

Important Report.—Uncertain Tenure.

From the evidence adduced it appears to Your Committee that the present depression of trade has been caused by the over-production of 1846, to the extent of 13,000,000 feet: in the fall of 1847 the surplus remaining in Quebec was still greater: in 1848 it had but slightly diminished, and it is likely for the next year, and probably longer, to have an injurious effect

upon the trade; this great increase of manufacture, no doubt, was induced by the enormous profit of 1845, and the supposition that large quantities of our timber would be required in the construction of railroads then projected in Great Britain and other parts of Europe. Another cause of increase in the manufacture, which however would apply chiefly to the Ottawa country, was a regulation of the Crown Lands Department requiring the manufacture of a certain quantity of timber on each "limit" whether or not it suited the occupier, under penalty of forfeiture. The tenure of the "limits" was also of so uncertain a nature that many of the holders were induced to manufacture as much as possible with a view of deriving the full advantage from their improvement so that they might, before forfeiture or change of system, have manufactured all the timber fit to be taken to market, and thus have defeated propositions then mooted for the division and re-granting of all limits held under Crown licenses from year to year; both of the above regulations have been suspended for the last two years, but not until the consequences had been severely felt, and the effects of which are still apparent in the large stock of timber on hand, and which has been a dead weight on the trade since 1846.

Your Committee can suggest no remedy to prevent over-production: the ease with which the quantity of timber can be increased, resulting from the unlimited extent of the lumbering country, and the fact that little or no mechanical skill is required in its manufacture, renders its production commensurate only with the means of the manufacturer and some few natural causes, such as the fall of snow, spring floods, etc., etc.

Ground Rent and Export Duty.

Your Committee are, however, of the opinion that the plans suggested by several witnesses examined before them, of abolishing the present system of granting licenses, having due regard to the rights of the present occupants, and the issue upon the terms of a ground rent, as proposed by Messrs. Aumont, Porter, Dawson, Russell and others, and the adoption of an export duty in lieu of the present charges, as now in use in the Province of New Brunswick, would have the effect of relieving the manufacturer from the oppressive burden of deposits on the issue of licenses and the payment of the duty on the timber reaching the market or soon after, without having any or much effect upon the revenue or the rights of private parties owning timbered lands.

In the event of this plan being considered impracticable, Your Committee begs leave to suggest an alteration in the collection of duty, by the substitution of actual measurement instead of the system now in use, of the payment of so much per stick, without reference to its size; this would have the effect of equalizing the duty on all sizes of timber, whereas at present the stick containing one hundred feet or more pays no more to the revenue than the one containing twenty feet or less, although the large stick is often one-third more valuable per foot than the small one; an increase in the revenue would thus be gained, and an impetus be given to the manufacture of the smaller sizes of timber for railroad and other purposes, which cannot at present be profitably manufactured, and which leads to the destruction of the larger sizes of timber for uses for which the smaller kind would suit as well, and which the present system prevents being manufactured; nor would the manufacture of small timber have the effect of destroying forests from which supplies of large timber might be drawn, as it is a fact that in many situations there are large tracts of country covered with small

timber, which has arrived at its full growth, and might be a source of wealth to the lumberman and revenue to the Province, if its manufacture was not virtually prohibited.

Your Committee would also suggest the reduction of the present establishment for the collection of timber duties, and the management of Slides upon the Ottawa, and the remodelling of the various offices, as suggested by the evidence of the parties above referred to, by which a saving to the Province of upwards of £1,000 per annum might be effected.

All of which is respectfully submitted.

JOHN SCOTT,
Chairman

THE FIRST CROWN TIMBER ACT.

The immediate outcome of the action of the Select Committee was the adoption, during the same session, of the first Canadian Legislative enactment on the subject of timber licenses, which, with the regulations of the Crown Lands Department, issued in accordance with its provisions, practically forms the point of departure from which our present system has been developed. It has, therefore, been considered advisable to present both in full, together with the form of license appended to the regulations.

An Act for the Sale and Betterment of Timber upon the Public Lands:—

Regulations Subject to Change.—For One Year Only.

“Whereas it is deemed expedient and proper to provide by law, as well for the sale of the Timber growing on the Public Lands of the Province, as for the protection of the said timber against the frequent and extensive depredations committed upon it in various parts of the Province: Be it therefore enacted by the Queen’s Most Excellent Majesty, by and with the advice of the Legislative Council and of the Legislative Assembly of the Province of Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliaments of the Province of Upper and Lower Canada, and for the Government of Canada, and it is hereby enacted by the authority of the same: That it shall and may be lawful for the Commissioner of Crown Lands, or any officer or agent under him, duly authorized to that effect, to grant licenses to cut timber on the ungranted lands of the Province at such rates and subject to such conditions, regulations and restrictions as may from time to time be established by the Governor of the Province, by and with the advice of the Executive Council, and of which due notice shall be given in the Canada Gazette. Provided always that no license shall be so granted for a longer period than twelve months from the date thereof: And provided further that if in consequence of any incorrectness of survey, or other error or cause whatsoever, a license shall be found to cover grounds already included in a license of a prior date, the license last granted shall become null and void in so far as it may interfere with the one previously issued, and the holder or proprietor of the license so rendered null and void shall have no claim whatsoever upon the Government for indemnity or compensation by reason of such cancellation.

2. And be it enacted, That the licenses so granted shall describe as accurately as circumstances will permit the ground or grounds upon which the Timber shall be cut and shall be held to confer, for the time being, on the nominee, the right to take and keep possession of the premises described to the exclusion of all other parties, subject to such regulations and restric-

tions as may be established; and such licenses shall have the effect of vesting in the holders or possessors thereof all rights of property whatsoever in all such trees, timber and lumber as shall or may be cut upon or within the limits of any such license during the term thereof, whether such trees, timber and lumber shall have been cut by or under the authority of the holder or proprietor of such license, or by any other person, with or without his consent, and such licenses shall be deemed sufficient authority to entitle the holders or proprietors thereof to seize or cause to be seized by way of re-vendication, *saisie re-vendication*, or otherwise, such trees, timber or lumber, where the same shall be found in Canada in the possession of any unauthorized person, and shall be deemed sufficient authority to institute any action or suit at law or equity against any wrongful possessor or trespassers, as well as to prosecute all trespassers and other offenders to punishment, and to sue for and recover damages if any shall have been sustained, and all proceedings pending at the expiration of any such license shall or may be continued and carried to final termination in the same manner as if said license had not expired.

3. And be it enacted, That all persons obtaining licenses shall, at the expiration of said license, make to the officer or agent granting the same, or to the Commissioner of Crown Lands, a return of the number and kinds of trees cut, and of the quantity and description of sawlogs, or of the number and description of sticks of square timber he has manufactured and carried away under such license, which statement shall be sworn to by the proprietor of the license, or his agent, or by his foreman or principal man, before one of the justices of the peace, who are hereby authorized to administer all oaths required by this Act; and persons refusing or neglecting to furnish such statement, or evading or attempting to evade any regulation hereafter to be established by Order-in-Council, shall be held to have cut without authority, and the timber made shall be dealt with accordingly.

Subject to Seizure.

4. And be it enacted, That all timber cut under licenses granted shall be held liable for the payment of the dues established thereon, so long as and wheresoever the said timber, or any part of it, may be found within the limits of the Province, whether in the original logs or manufactured into deals, boards, or other stuff, and it shall be lawful for all officers or agents entrusted with the collection of such dues to follow all such timber and seize and detain the same wherever it may be found until the dues are paid or satisfactorily secured.

5. And be it enacted, That bonds or promissory notes, which may be taken for the amount of dues either before or after the cutting of the timber, as collateral security or to facilitate collection, shall not in any way affect, or invalidate the lien of the Crown on any part of the timber, but the lien shall subsist in full force until the dues are actually discharged.

6. And be it enacted, That if any timber so seized and detained for non-payment of dues, shall remain more than twelve months in custody of the agent or person appointed to guard the same, without the dues and expenses being paid, then it shall be lawful for the Commissioner of Crown Lands, with the previous and special sanction of the Governor-in-Council to that effect, to order a sale of the said timber to be made after sufficient notice, and the balance of the proceeds of such sales, after retaining the amount of dues, and costs incurred, shall be handed over to the owner or claimant of such timber.

Trespass.

7. And be it enacted, That each and every person who without competent authority shall cut, or who may employ or induce any other person or persons to cut, or who shall assist in cutting any timber of any kind whatsoever, on any of the Crown, Clergy, School or other Public Lands of the Province, or who shall remove or carry away any Merchantable timber of any kind so cut from any of the Public Lands aforesaid, shall not acquire any right to the timber so cut, or claim to any remuneration for cutting, or preparing the same for market, or for conveying the same to or towards the market, but he shall in addition to the loss of his labor and disbursements, forfeit a sum of fifteen shillings for each and every tree, rafting stuff excepted, which shall be proved he cut or caused to be cut or carried away; which shall be recoverable with costs, at the suit, and in the name of the Commissioner of Crown Lands or resident agent, in any Court having jurisdiction in civil matters to the amount of the penalty; and that in all cases under this Act, it shall be incumbent on the party charged to prove license or authority to cut and the averment of the party seizing or prosecuting that he is duly employed under the authority of this Act, shall be deemed sufficient proof thereof, unless the defendant shall prove to the contrary; provided always that the penalty of fifteen shillings per tree shall only be recoverable when the timber or saw logs made have been removed out of the reach of the officers of the Crown Lands Department or it shall otherwise be found impossible to seize the same.

8. And be it enacted, That whenever satisfactory information supported by the affidavit of one or more persons, made before a Justice of the Peace or before any other competent party, shall be received by the Commissioner of Crown Lands or any other officer or agent of the Crown Lands Department, that any timber or quantity of timber has been cut without authority on Crown, Clergy, School, or other Public Lands and describing where the said timber may be found, it shall and may be lawful for the said Commissioner, officer or agent, or any one of them, to seize, or cause to be seized, in Her Majesty's name, the timber so reported to be cut without authority, wherever it may be found within the limits of the Province, and to secure and place the same under proper custody, until such time as a decision can be had in the matter from competent authority; Provided always that wherever the timber so reported to have been cut without authority on the public Lands aforesaid, without license, has been made up with other timber into a crib, dam or raft, or in any other manner has been so mixed up at the mills or elsewhere, as to render it impossible or very difficult to distinguish the timber so cut on the lands aforesaid without license, from other timber with which it may be mixed up, the whole of the said timber shall be held as having been cut without authority on Public Lands, and be liable to seizure and forfeiture accordingly until satisfactorily separated by the holder.

9. And be it enacted, That it shall and may be lawful for any such officer in the discharge of his duty to call in such lawful aid and assistance in the name of the Queen as may be necessary for securing and protecting the timber so seized: and if any person or persons whatsoever, shall, under any pretence, either by actual assault, force or violence, or by threat of such assault, force or violence, in any way resist, oppose, molest or obstruct any officer, or person acting in his aid or assistance, in the discharge of his or their duty, under the authority of this Act, such person or persons being convicted thereof shall be adjudged guilty of felony and shall be punishable accordingly.

10. And be it enacted, That if any person or persons whatsoever, whether pretending to be the owner or not, shall either secretly or openly, and whether with or without force or violence, take or carry away, or cause to be taken and carried away, any timber which shall have been seized and detained as subject to forfeiture under this Act, before the same shall have been declared by competent authority to have been seized without due cause, or without permission of the officer or person having seized the same, or of some competent authority, such person or persons shall be deemed to have stolen such timber, being the property of Her Majesty, and to be guilty of felony, and liable to punishment accordingly; And that whenever any timber shall be seized for non-payment of dues, or for any other cause of forfeiture, or any prosecution shall be brought for any penalty or forfeiture under this Act, and any question shall arise whether the dues have been paid on such timber, or whether the said timber has been cut on other than any of the Public Lands aforesaid, the burden of proving payment, or on what land the said timber has been cut, shall lie on the owner or claimant of such timber, and not on the officer who shall seize and stop the same or the party bringing such prosecution.

11. And be it enacted, That all timber seized under this Act shall be deemed and taken to be condemned, unless the person from whom it was seized, or the owner thereof, shall, within one calendar month from the day of the seizure, give notice to the seizing officer, or nearest officer or agent of the Crown Lands Office, that they claim or intend to claim the same; failing such notice the officer, or agent seizing or causing to be seized shall report the circumstances to the Commissioner of Crown Lands, who shall or may order the sale of the said timber by the said officer or agent, after a notice on the spot of at least thirty days; Provided always that it shall and may be lawful for any Judge having competent jurisdiction, whenever he may deem it proper to try and determine such seizures, and to order the delivery thereof to the alleged owner on receiving security by bond with two good and sufficient sureties, to be first approved by said agent, to pay double value in case of condemnation, which bond shall be taken to Her Majesty's use in the name of the Commissioner of Crown Lands, and shall be delivered up to and kept by such Commissioner, and, in case such seized timber shall be condemned, the value thereof shall be forthwith paid to the Commissioner of Crown Lands, or agent, and the bond cancelled; otherwise the penalty of such bond shall be enforced and recovered.

12. And be it enacted, That if any wilful false oath be made in any case where, by this Act, an oath is required or authorized, the party wilfully making the same shall be guilty of wilful and corrupt perjury, and be liable to the punishment provided for that offence; and any persons availing themselves of any false statement or oath to evade the payment of dues shall forfeit the timber on which duty is attempted to be evaded.

13. And be it enacted, That parties maliciously cutting or loosening Booms, or breaking up or cutting loose Rafts or Cribs, shall be guilty of a misdemeanor, punishable with fine and imprisonment of not less than six months.

14. Provided always and be it enacted, That nothing in this Act contained shall be construed as in any way invalidating or affecting licenses already granted or any obligation contracted for payment of dues under such licenses, or to invalidate or affect the lien of the Crown on any timber cut upon Public Lands now within the limits of the Province, and upon which the dues heretofore exacted have not been paid, notwithstanding any bond or promissory note which have been taken for the amount of such dues.

REGULATIONS.

Department of Crown Lands,

Montreal, 5th September, 1849.

Notice is hereby given that from and after the First of October next Licenses agreeable to the accompanying form will be granted, at all seasons, to cut timber on the vacant lands of the Crown, subject to the following conditions and regulations, sanctioned by His Excellency the Governor General in Council, in addition to the requirements of the Act, 12 Vict., Cap. 30:

1st. For the River Ottawa and its tributaries above Bytown, including the districts of Bathurst, Dalhousie and that part of the Midland District lying north of the townships of Bedford, Hinchinbrooke, Kennebec and Kaladar, applications are to be made in writing to James Stevenson, Esquire, Crown Timber Office, Bytown, and for other parts of the Province to the respective Crown Land Agents, distinctly describing the space or limits for which the license is required, and furnishing sketches when required, connecting with known points, and drawn to scale.

Size of Berths.

2nd. No timber berth or location will be licensed in unsurveyed lands exceeding 10 miles in length by 5 miles in depth, or exceeding an area of 50 square miles, and half that size in surveyed townships; in the latter case, the lots and concessions required will have to be specified, limits to be confined to one side of rivers wherever practicable. All licenses to expire on the 30th April following the date thereof. Consecutive limits may be held by the same individual.

3rd. The timber cut shall be paid for at the following rates:

Crown Dues.

White pine square timber	½d. per foot.
Red pine square timber	1d. " "
Basswood and cedar	½d. per foot.
Oak	1½d. " "
Elm, birch and ash	1d. " "
Cordwood (hard)	8d. per cord.
Cordwood (soft)	4d. " "
Red pine logs, 12 feet long	7d. per log.
White pine logs, 12 feet long	5d. " "
Spruce	2½d. " "
Each stick of white pine to be reckoned as containing	70 cubic feet.
Red pine	38 " "
Oak	34 " "
Elm, ash and birch	34 " "
Cedar and basswood	34 " "

Railway timber will be taken at actual measurement, provided it does not average more than half the regular size, or on the party exhibiting a contract and specifications for such timber corresponding to the timber in his raft.

All square timber, logs, deals, boards or other stuff made up into rafts or cribs, or leaving the district in any other form, to be submitted to counting or actual measurement whenever it may be deemed advisable.

Statements under oath to be furnished of the kinds and quantities of timber and logs cut and carried away.

Amount to be Cut.

4th. Applicants for license will be required to make a deposit of one-fourth of the duty on the quantity of timber to be made, which is to be estimated at the rate of 500 feet per square mile, or on the quantity proposed to be made, if greater, giving bonds with security for the remainder. No license to be estimated for less than 2,000 feet of timber. Saw log limits to be estimated as square pine timber.

Applicants neglecting to comply with this condition within the period of three months in the Bytown Timber Office, and one month in any other agency, from the date of the receipt of their application, will lose the claim to the limits, which will fall to the next applicant. Deposits will in no case be returned, and only allowed in reduction of dues the first or second season after the date of the License, and not afterwards. Licenses granted on erroneous descriptions or sketches furnished by applicants may be declared null and void by the office, whenever deemed necessary, and parties carrying on operations under such licenses after being required to desist will be considered as trespassers and subject to the penalties of the Timber Act.

Transfers.

5th. Transfers of limits to be in writing and if not found objectionable by the Crown Lands Department or Timber Agent, to be valid from the date on which they may be deposited in the hands of the latter, but no transfer to be valid until after one year's actual occupation by the parties transferring them. It being however well understood that in granting Timber Licenses the Government contract no other obligation than that of allowing the party concerned to cut and carry away the quantity of timber mentioned in the license if found within its limits.

Squatters.

6th. Squatters or other occupants of land without authority cutting timber or saw-logs thereon without License (except for the necessary building or clearing and fencing) or others doing so by their permission, will be subject to the penalties established by law for cutting timber without a license. Timber cut on land being purchased, but not all paid for, to be collected by Government in part payment of the land.

7th. Persons refusing or evading the payment of slide dues or duties on their Timber, or the final settlement of bonds for the same before giving it away, or in any default with the office;—also persons taking violent possession of disputed grounds before obtaining a decision in their favor, and parties refusing to comply with the decisions of Courts or of Arbitrators or the regulations of this Office—or who forcibly interrupt surveyors, shall be refused further licenses and their limits become disposable to others on the expiration of their licenses.

Claims to Renewal.

8th. Licentiates who shall have duly occupied their limits, and who shall have strictly complied with all the requirements of the office, will be considered as having a claim to the renewal of their license in preference to all others, on their making application to that effect in writing, on or before the 31st May, and depositing the money and bonds required on or before the 30th September (excepting that for this season they will be received until the 31st December) failing which the limits to be considered vacant, and to be disposable by Public Sale on the 10th day of October following, or subsequently to the first applicant.

Proof of Occupation.

9th. Unless in seasons excepted by special notice, limits upon which the holder will make less than an average of 500 feet of timber, or 20 saw logs per square mile, or upon the entire extent of which (if less than four superficial miles) he will make less than 2,000 feet of timber, or less than 100 saw logs, shall be considered as not having been duly occupied, and will, after the former owner has had an opportunity of being heard in opposition, be granted to the first applicant pleading such non-occupation, on or before the 31st May, and proving same by the Certificate of a sworn surveyor on or before the 31st July following. Should the statement on oath required by the Timber Act not be made when required, or should it show that the limits have not been duly occupied, a surveyor's certificate will not be required. Provided, however, that if 250 feet of timber or 10 saw logs are proved to have been made per square mile, the holder of the said limit shall be entitled to retain one-half of the same, which shall then be divided under the directions of the office at the expense of the former holder, into two equal halves of which the said holder shall have his choice, leaving the remainder to the new applicant.

10th. Parties having rivers to clear or other improvements to make to render their berths available, will be considered as having duly occupied the same, if they establish to the satisfaction of the office, having laid out in such improvements during the season a sum averaging at least £6 per square mile, and provided that the entire amount be not less than £24, even for the smallest limit.

Licenses to be Renewed

N. B.—Present holders of timber berths under license will be entitled on the foregoing conditions to renew their licenses for the same, on subdividing such as may exceed the extent sanctioned by the present regulations, and making their applications on or before the 31st of May next; but all renewals of licenses shall be subject to such modifications as may be found necessary to settle or obviate disputes.

FORM OF LICENSE.

By authority of the Hon. the Commissioner of Crown Lands for the Province of Canada, and for and in consideration of the payments made and to be made to Her Majesty as secured by a bond of this date; I do hereby give unto and unto Agents and Workmen full power and license to cut upon this Location described on the back hereof by and to hold and occupy the said Location

to the exclusion of all others, except as hereinafter mentioned from to 30th April, 18 , and no longer, with the right of conveying away said timber through any ungranted or waste lands of the Crown.

And by virtue of this License, the said Licentiate has a right by the Provincial Statute 12th Vic. Cap. XXX, to all timber cut by others in trespass on the ground hereby assigned, with full power to seize and recover the same anywhere within this Province aforesaid. But this license is subject to the following conditions, viz.:—

That any person or persons may at all times make and use roads and travel over the ground hereby licensed, and cut and take therefrom any trees necessary to make floats, traverses, oars and withes for use in rafting.

That nothing herein shall prevent any person or persons from taking standing timber of any kind to be used in making Roads or Bridges or for Public Works.

And that persons settling under lawful authority or title within the location, hereby licensed, shall not in any way be interrupted by the said Licentiate or any one acting for or by permission.

And further, under condition that the said Licentiate or representatives shall comply with all Regulations that are or may be established by Order in Council, and shall submit all the timber cut under this License to be counted or measured and settle for the duties chargeable thereon when required by me or any Officer thereunto authorized, otherwise the said timber will be forfeited to the Crown, and the said Licentiate be subject to such other penalty as the Act provides.

Given under my hand at , this day of ,
in the year of our Lord one thousand eight hundred and .

(Signed)

Collector of Crown Timber Duty.

It will be seen that the new regulations, while retaining the provision requiring the manufacture of a certain quantity of timber each year on every limit, did much to rectify abuses and prevent over-production by practically giving the license-holder a preferential claim to the renewal of his license, upon compliance with the conditions, and making the taking forcible possession of disputed territory and refusal to comply with the decision of courts or arbitrators punishable by the refusal of license. An attempt to remedy the unfairness of the mode of levying dues, by which the smaller-sized timber paid so much more in proportion than the larger sticks, is indicated by the somewhat elastic provisions of the third clause of the regulations providing for the counting or actual measurement whenever it may be deemed advisable. The provision calling for the manufacture of 500 feet of timber per square mile as a condition of occupancy, while theoretically objectionable, was hardly likely to work much practical injury to the trade, modified as it was by the saving clause under which it might be dispensed with for any season by special notice. The fact of it having been so suspended for two years previous to the adoption of the Act, in consequence of an over-stocked condition of the market, and that attention had been fully directed to its possible injurious effects if maintained during periods of business depression, rendered it comparatively innocuous for the future.

The essentially characteristic and valuable feature of this legislation was, however, the greater stability and permanence attaching to the lumberman's business and interest in the limit secured. By rendering him practically assured of a renewal of his license so long as he chose to comply

with the regulations laid down from time to time, and equally secure in the possession and working of his limit, without having to maintain his claim by physical force against his rivals, it lessened the temptation to reckless over-production and unsystematic, wasteful methods of operation.

In 1851 a conspicuous advance was made by the issuing of new regulations, which, while framed on the same general lines as those of 1849, contained several new provisions of importance, aimed at some of the abuses that had been indicated by the investigation which preceded the Act of 1849.

The following are the regulations in full:

PROVINCE OF CANADA.

CROWN LANDS DEPARTMENT,

TORONTO, 8th August, 1851.

NOTICE is hereby given, that from and after the date hereof, LICENSES agreeably to the accompanying form, will be granted, at all seasons, to cut timber, on the Vacant Lands of the Crown, subject to the following conditions and Regulations, sanctioned by HIS EXCELLENCY THE GOVERNOR GENERAL in Council, by Order dated the Seventh instant, in addition to the requirements of the Act 12th Vic., Cap. 30. And the Regulations of the 5th September, 1849, and 15th March, 1850, are hereby superseded.

1st. Applications for Licenses to cut timber on the vacant Lands of the Crown on the River Ottawa and its tributaries from the Gatineau, and the Townships of Hull and Wakefield inclusively, upwards; and the Counties of Lanark, Renfrew and Carleton, and that part of the Counties of Frontenac, Lennox and Addington north of the Townships of Bedford, Hinchinbrooke, Kennebec and Kaladar—are to be made to A. J. Russell, Surveyor of Crown Timber Licenses, Bytown; and in other parts of the Province to the respective Crown Land Agents.

2nd. Applications must be in writing, distinctly describing the space or stating the lots of land for which license is required, the applicants furnishing sketches of the limits asked when required, connected with known points, and drawn to scale. No timber berth shall be licensed in unsurveyed lands, exceeding ten miles in length, by five miles in depth, nor exceeding an area of fifty square miles, and half that size in surveyed townships, in the latter case the lots and ranges to be stated—berths to be confined to one side of rivers, wherever practicable. All licenses to expire on the 30th of April following the date thereof. Consecutive berths may be held by the same individual.

3rd. The timber cut shall be paid for at the following rates, viz.:

Oak and Walnut per cubic foot	1½d
Red Pine, Elm, Birch, Ash and Tamarac	1d
White Pine, Basswood, Cedar, Spruce, etc	0½d
Red Pine Saw Logs, 12 feet long, per log	7d
White Pine do do	5d
Spruce do do	2½d
Cord Wood, (hard) and Lath Wood per cord	8d
do (soft) per cord	4d

Each stick of White Pine to be reckoned as containing 70 cubic feet.

Each stick of Red Pine to be reckoned as containing 38 cubic feet.

All other kinds of wood as containing 34 cubic feet.

Railroad timber to be taken at actual measurement, provided it does not average more than half the regular size, or on the party exhibiting a contract and specification corresponding with the timber in his raft.

All Saw Logs cut in future upon Public Lands, if exported from the Province, shall be paid for at double the rates mentioned above respectively.

4th. All Square timber, Logs, Deals, Boards or other Stuff leaving the Agency in which it is cut in any form, must be submitted to counting or actual measurement whenever required and statements under oath must be furnished of the kinds and quantities of timber and logs cut under each license, when required by the Agent for the granting of licenses, or other authorized person.

5th. Parties cutting timber on Public Lands, before moving any raft or parcel of timber (whether cut on Public or Private lands) from the Agency in which they held license, shall make report thereof to the Collector of Crown Timber Dues or Agent; making, if required, declaration upon oath as to the number of pieces of each kind of wood in each raft or parcel, and the number of cribs; whereupon they shall obtain clearances from the Collector or Agent, stating the number of pieces in each raft--how many, if any, have been satisfactorily proved to be from Private Lands, and on how many, if any, the duties have previously or then been paid; and on the arrival of any such raft or parcel of timber at Quebec, or at any intermediate place or other port, for sale or shipment, the owner or holder of it shall make report thereof within forty-eight hours to the inspector of Rafts, Deputy Supervisor of Cullers, or other appointed officer, and in addition to the quantity shewn by the clearance as subject to duty, any surplus timber beyond the number of pieces stated herein, on being ascertained by the Inspector of Rafts, Deputy Supervisor of Cullers, or other authorized officer, shall be held as having been cut upon Crown Lands, and be subject to the payment of duties accordingly.

6th. Parties omitting to report the departure of their rafts or other timber from the Agency in which they held license, or the arrival thereof at Quebec, or other port or place for sale or shipment within the Province, as before mentioned, shall be refused further license, and be subject to the forfeiture of the timber for evasion of regulations, as provided in Section 3rd of 12th Vic., Cap. XXX.

7th. Hereafter on the issue of License to cut timber on Public Lands, a Ground Rent of Two Shillings and Sixpence for every superficial mile licensed, shall be exacted in addition to the established duties; and the deposit on account hitherto levied shall be discontinued. The Ground Rent shall be computed on the nearest approximation to the real areas of the timber berths, but on no license shall it be less than One Pound currency; and no claim for reimbursement of ground rent over-calculated will be entertained after the issue of license.

8th. The ground rent to be exacted on the renewal of license shall be double that of the previous year if the berth has not been duly worked upon—increasing annually in that proportion while unoccupied, (excepting the year succeeding that in which the license has been first issued, if not in a surveyed township); reverting to the original rate on the berth being duly occupied; and the making of 500 feet of square timber or 100 saw logs per square mile shall be considered as due occupation.

9th. No timber berth shall be forfeited for the non-occupation of it, provided the increased ground rent on that account be duly paid; but berths on which any increased ground rent is evaded by false statements as to occupation shall, (after the former holder has had an opportunity of being heard in opposition) be granted to the first applicant pleading such evasion and non-occupation on or before the 31st May, and proving the same by the

certificate of a sworn Surveyor, on or before 31st July following. If half occupation only be proved, the former holder may retain one-half of the berth after it has been equitably divided in the opinion of the Agent.

10th. Vacant berths are to be granted to the first applicants and be described in the licenses as—"not to interfere with prior licenses existing, or to be renewed in virtue of Regulations," but applicants for vacant berths must call for license and pay the required Ground Rent (giving satisfactory security for the payment of all duties that may accrue under the license) within three months of the receipt of their applications in the Bytown Timber District, and all other parts of the Province where the lands are not laid out into Townships or otherwise surveyed for settlement, and within one month in those portions of other agencies where the lands are surveyed or otherwise laid out for settlement; otherwise their applications will be void and the berths be grantable to the next applicants in succession. Ground Rent received to be returned to the applicant, should it be found that the berth asked cannot be made good to him.

11th. Licentiates who have complied with all the regulations, will be entitled to renewal of the licenses for their berths in preference to other applicants for them, if they apply in writing for such renewal before the 1st of June next ensuing their previous license, and comply with the conditions mentioned in last clause before the 1st November following; failing which, the berths they held will then become vacant and will be offered for sale on 10th November following to the highest bidder making immediate payment, and if not then sold, will be granted to the first applicant thereafter as usual.

12th. When two or more applications are received at the same time for the same ground, it shall be divided between the parties by lot,—should any of them wish it to be so, otherwise the right to the whole is to be determined by lot. But on Rivers, where the cost incurred for surveys or other causes may render it suitable, the preference to license for timber berths may be disposed of at such upset price as the Commissioner of Crown Lands may direct, and be awarded in whole, or in part, to the highest bidder at Auction making immediate payment, in case of clashing applications of equal right.

13th. In the Bytown Timber District, and all other parts of the Province where the lands are not laid out into Townships or otherwise surveyed for settlement, when an applicant has been obstructed for a month or more by a prior application—(for the same ground)—that has become void, he is to be allowed one month in addition to the stated period to take out license, provided he applies in writing for such extension of time, within three months after the receipt of his application for license, and in those localities where, by the 10th clause of these Regulations, one month is the period for which an application is held good, ten days only shall be allowed in addition, in case of ten days or more of obstruction.

14th. When an application cannot be decided upon till the result of some pending survey be known, or till it be projected, the applicant is to be allowed three months in the Bytown Timber District, and all other parts of the Province where the lands are not laid out into Townships, or otherwise surveyed for settlement, and one month elsewhere, to take out license, after the notification of the result, if in his favor, has been sent to his address; and when the explorations necessary for the preparation of the sketches required by these Regulations cannot without serious loss be effected without an extension of time, it may, on written application, be granted. Licenses granted on erroneous descriptions or sketches furnished by applicants, are to be subordinate to subsequent accurately described licenses.

and may be cancelled in whole, or in part, whenever deemed necessary; parties persisting in working under such licenses, after being required to desist, will be trespassers and subject to penalties as such.

15th. The Surveyor of Licenses, and the other Crown Timber Agents, shall keep registers of all applications for berths, licenses granted, and transfers thereof, which, with their plans of licensed limits and vacant ground, shall be open for public inspection; but no applicants shall be entitled to explanation as to applications subsequent to his own, for the same ground.

16th. The Surveyor of Licenses at Bytown and Officers thereunto authorized elsewhere, shall, at the written request of any party interested, issue instructions stating how the boundaries of timber berths should be run, to be in conformity with existing licenses. The surveys are to be performed at the expense of the parties requiring them, but the plans, reports and field notes thereof will be paid for and kept of record by the Surveyor of Licenses or Agent on their being examined and approved by him.

17th. In all cases of contestation as to the right to berths or the position of bounds, the opinion of the Surveyor of Licenses at Bytown, or Agent for granting licenses elsewhere, is to be binding on the parties, unless and until reversed by arbitration, within three months after notification of such opinion has been communicated to the parties (or their representatives on the premises, or sent to their address) or by decision of Court.

18th. To prevent delay and disputes as to arbitrators, it shall only be necessary for the party thinking himself aggrieved by such opinion, to notify in writing to the officer who has given it, his dissent, and the arbitrator he has appointed; it shall then be the duty of the Surveyor of Licenses, or other authorized officer, to take the place of the arbitrator on the other part, and in the case of their not agreeing to an umpire, should one be required, the Commissioner of Crown Lands shall appoint one, at the joint expense of the parties, on the request of either of them, or either of the arbitrators.

19th. Transfers of berths to be in writing, and if not found objectionable by the Crown Lands Department or agent for granting of license, to be valid from the date on which they may be deposited in the hands of the latter; but no transfer to be valid till after one seasons actual occupation by the party transferring them.

20th. Squatters or other occupants of land without authority, cutting timber or saw logs thereon without license (except for clearing, building or fencing thereon) or others doing so by their permission, will be subject to the penalties established by law for cutting timber without license.

21st. Persons refusing or evading the payment of Slide Dues or duties on their timber, or the final settlement of bonds for the same before giving it away, or in any default with the Crown Timber Officer or Agent; also persons taking violent possession of disputed grounds before obtaining a decision in their favor, and parties refusing to comply with the decisions of Courts, or of Arbitrators, or the regulations established by Order in Council, or who forcibly interrupt surveyors, shall be refused further licenses, and their berths become disposable to others on the expiration of their licenses.

22nd. The Collector of Crown Timber Dues or the officer in charge of the Bytown Timber District, may authorize any of the local Crown Land Agents to collect the duties on any timber or saw logs cut under license for local consumption or that may be sent to market, otherwise than by Bytown; and all such Agents whose Agencies, or any part of them, may be within or adjoining the Bytown Timber District, are authorized to seize any timber

or saw logs cut without license within or passing through their Agencies, on the proceeds of which they shall receive their usual percentage for collection.

23rd. Licenses are to be granted on the annexed form. The clause at the foot thereof must be signed by Licentiate's Securities in place of the bonds formerly taken, and the description of the berth is to be written on the back of the license.

FORM OF LICENSE.

By authority of the Provincial Statute 12th Victoria, Chapter 30, and Regulations dated Eighth of August, 1851, and for and in consideration of the payments made, and to be made to Her Majesty:—I DO HEREBY GIVE UNTO and unto Agents and Workmen full power and license to cut upon the location described on the back hereof by and to hold and occupy the said location to the exclusion of all others, except as hereinafter mentioned:—from to Thirtieth April, 18 , and no longer; with the right of conveying away the said timber through any ungranted or waste Lands of the Crown:

And by virtue of this License the said Licentiate has right by the said Provincial Statute to all timber cut by others in trespass on the ground hereby assigned, with full power to seize and recover the same anywhere within this Province aforesaid.

But this License is subject to the following conditions, viz.:

That any person or persons may at all times make and use roads upon, and travel over the ground hereby licensed, and cut and take therefrom any trees necessary to make Floats, Traverses, Oars and Withes for his or their use in rafting.

That nothing herein shall prevent any person or persons from taking standing timber of any kind to be used for the making of roads or bridges, or for public works.

And that persons settling under lawful authority or title within the location hereby licensed shall not in any way be interrupted by the said Licentiate, or any one acting for or by

And further, under condition that the said Licentiate or representatives shall comply with all regulations that are or may be established by Order in Council, and shall submit all the timber cut under this license to be counted or measured, and settle for the duties chargeable thereon, when required by me or any other officer thereunto authorized, otherwise the said timber will be forfeited to the Crown, and the said Licentiate be subject to such other penalty as the Act provides.

GIVEN under my hand at this day of
in the year of Our Lord one thousand eight hundred and

Ground Rent.....£

We have read and comprehend the nature of the obligations contained in this License, and we bind ourselves jointly and severally, and each of our Heirs, Executors, Curators and Administrators, to pay all duties that may become due and payable to Her Majesty, Her Heirs or Successors, on any timber cut or acquired by virtue of this License in the event of the above named Licentiate failing or refusing to pay the same, or to give satisfactory bonds for the payment thereof.

1851
Penalty for not Working.

The principal change in the system created by the regulations was the imposition of a ground rent, a measure almost universally favored by practical lumbermen as the best means of preventing the monopolization of unworked limits. The deposit on account of dues was discontinued, and in case the comparatively small ground rent should be insufficient to prevent licensees holding their limits from year to year unoccupied, as might easily be the case should the limits be specially valuable and the market dull, it was provided that the ground rent should be doubled for every year that the limits remained unworked. The general principle of disposing of timber berths by grant to the first applicant, giving previous occupants who had complied with the regulations the preference, was left undisturbed.

Auction System Extended.

But a particularly significant modification was introduced by the 12th clause, providing that upon rivers where the cost of surveys rendered it advisable, preferences for licenses might be disposed of at an upset price fixed by the Commissioner of Crown Lands, and in the case of competition awarded to the highest bidder at auction. This is an important extension of the principle adopted in 1842, and an advance towards the adoption of the auction system as it now exists.

To Prevent the Export of Saw Logs.

Another noteworthy change in the law, interesting in view of the importance attaching to the same question in the course of recent legislation and diplomacy, was the provision that all saw logs cut upon public lands, if exported from the Province, should be paid for at double the ordinary rate. This subject had been brought to the attention of Parliament during the session of 1851, when on the 22nd of May petitions from N. McKinnon and other lumbermen and mill-owners of Bayham and surrounding townships, and from the municipality of Bayham were presented, asking for an export duty on unmanufactured pine logs and timber designed for foreign markets. The county of Middlesex also petitioned for measures to prevent the exportation of pine logs. On the 2nd of June the Hon. Mr. Sherwood brought the matter up by an inquiry of the Government as to whether they intended to propose such a duty, or to take any other steps to protect the timber manufacturers of the Province against the injurious practice, on the part of American citizens, of securing Crown Lands at a low rate for the purpose of cutting timber to be manufactured in their own country. Hon. Mr. Hincks' reply was to the effect that it was not the intention of the Government to propose an export duty on saw logs, but that steps had been taken to prevent the destruction of timber on the Crown Lands. The embodiment in the regulations of the clause respecting the double duty on saw logs cut for export was no doubt the result of this agitation, which appears to have excited very little public interest beyond the circle of those immediately concerned in the trade.

Increased Revenues.—Red Pine Values.

The beneficial effects of the more stringent policy inaugurated by the new regulations, were not long in manifesting themselves. There was an immediate and considerable increase in the revenue from timber licenses.

The proceeds of timber dues were £22,270 in 1848; £24,198 in 1849; £24,728 in 1850, and £30,318 in 1851. In 1852, the first year in which the new regulations were in operation, the total receipts from timber licenses and duties went up to £53,013, of which £7,656 represented ground rents. This increase, moreover, accrued in spite of the reduction by one-half of the rate which had previously been levied on red pine. The trade in that article had for some years been declining in volume, and the timber decreasing in price, while the white pine, formerly considered as of secondary importance, had met with increasing appreciation in the British market. Under these circumstances the distinction made by the tariff of rates, which fixed the duty on red pine timber at one penny per foot, while white pine only paid one half-penny, was felt to be an injustice and an anomaly. Petitions from the corporation of Bytown and the municipal council of Carleton County, among others were forwarded to the Government, praying for a reduction of the Red Pine duty. Hon. John Rolph, the Commissioner of Crown Lands, in a report on the subject, dated July 24th, 1852, dealt fully with the changed conditions of the lumber export trade and the causes resulting in the supremacy of Canadian white pine as our staple forest product. His presentation of the matter is of general interest, apart from the immediate object of the inquiry, in its relation to the new phase entered upon by the lumber industry in response to the altered demands of the British market. After noting the representations of the petitioners that from time to time, when the Imperial differential duty was reduced below 24s. per load, the export of Canadian red pine began to diminish and their apprehensions, that the continued decline in the trade threatened its utter extinction unless the heavy charges to which it was subject were reduced by equalizing the duty with that on white pine, the report continued:—"It appears that the rates levied upon the respective kinds of timber were adopted under circumstances very different from what now exist. At a period not very remote, white pine, the staple product of the forests of Canada, did not bear a very high character in the British markets. On the other hand, red pine, which is the staple product of the forests of Northern Europe, was highly esteemed. The result was that the heavy duty on foreign timber enhanced the price of that article, of which the supply was obtained mainly from the Baltic, and while the greater quantity obtained from thence regulated the price, the limited supply obtained from Canada was favored by a difference at one time of more than 1s., and until lately of more than 6d. per foot, even the latter being much more than the difference in freight.

White Pine in Favor.

"Of late years, however, the White Pine of Canada has been found; for many purposes, a better article than red, and has acquired a higher character than it formerly bore, the result of which has been that while the export value of the Red Pine in Quebec has been diminished by the withdrawal of the artificial price formerly created for it, the value of White Pine has become gradually enhanced by a better appreciation of its qualities.

"It is indeed to be hoped that Canada will, upon the whole, be a gainer by the changed aspect of the trade. It may seem strange that a higher value should be attached to a highly taxed article, merely, as it were, by reason of its extra price, but it is a remarkable fact that, as the price of a highly taxed and highly priced article was lowered by the removal of the unjust impost upon the consumer, the comparatively untaxed article, till then cheap, became better appreciated as it became subject to a more equitable and

fair competition. When the colonial timber trade was 'protected,' the species of timber which Canada and New Brunswick only could supply in abundance was cheap, and in proportion to its price was considered of little value, but when left to fair competition, it has risen in the estimation of the consumer to an extent equivalent to the loss sustained upon that species of timber which had really been enhanced in value by the differential duty."

The report refers to the statistics presented in the memorial of the County of Carleton as evidencing the serious and permanent character of the depression in the export of red pine, which are as follows:—

	Export.	Price (40 feet average).	s.	d.	
1844	4,699,149	1 0	per foot.		
1845	5,182,320	1 0	"		
1846	5,206,040	0 11 $\frac{3}{4}$	"		
1847	4,466,520	0 9	"		
1848	4,365,440	0 8 $\frac{1}{2}$	"		
1849	4,070,600	0 8	"		
1850	3,586,844	0 8	"		
1851	3,482,400	0 8	"		

White versus Red.

The report went on to point out that the then existing rates of duty levied upon red and white pine, apparently established in 1829, has been maintained through all the mutations of the trade since that period without modification. Though no statistics were available to show the relative value of red pine at that period, yet at a much more recent date the average market value was at least double the value of white pine and therefore justly subject to the higher duty. It still bore a higher value in Quebec market than white pine, but it also cost more to bring it to market, considering which it was doubtful whether red pine bore even as high a value as white when growing in its natural state. It was of much smaller average size and consequently required a greater amount of labor to produce in a marketable state an equal quantity of cubic feet. The red pine producing country lay at a greater average distance from the market, increasing the cost of transportation, and the average level of the red pine country was higher than where the white pine was principally produced, consequently there were greater obstacles and more expenses incurred for slides, dams and other improvements to enable it to be floated. The heavier charges to which the production of red pine was subject, were therefore regarded as fully equivalent to any difference in the market price in its favor and reducing its value as a standing timber to a par with the white pine.

The Commissioner estimated the loss to the revenue for the current season by the proposed reduction at £4,166 13s., but stated that the amount would be more than made up by the stricter enforcement of the law, and the prevention of frauds by which timber had escaped the payment of duties under the false pretence of being from private lands. The report concluded with the recommendation that in consideration of existing circumstances of the trade the prayer of the petitioners be granted and the duty on red pine be reduced to one half-penny per cubic foot. An Order in Council to this effect was accordingly issued on the 14th of September following.

Exports.

In connection with this subject the following figures from a return of the quantity of timber measured through the Supervisor of Culler's office at Quebec for the years 1845-52 are of interest as showing the relative importance of white and red pine at that period:—

Year.	White Pine. Feet.	Red Pine. Feet.
1845	19,141,982	4,444,515
1846	24,662,815	5,183,307
1847	12,074,708	6,516,922
1848	7,132,127	4,223,952
1849	11,924,198	3,797,584
1850	14,388,593	2,121,316
1851	15,487,180	3,189,657
1852 to Sept. 30	26,364,464	1,857,333

During the session of 1854-55 Mr. Carter, introduced a bill to protect the forest and to prevent the setting of fire to the woods with the view of clearing lands. The measure was however dropped before reaching a second reading, probably in consequence of the appointment of a Committee of the House to investigate the whole subject of the management of public lands. On the 16th October, 1854, the House of Commons adopted the following resolution:—

"Resolved, that a select committee composed of Mr. Galt, the Hon. Mr. Morin, the Hon. John Sandfield Macdonald, the Hon. Mr. Hincks, the Hon. Mr. Rolph, Mr. Lemieux, Mr. Jean Baptiste Eric Dorion, Mr. Langton, Mr. Ferguson, Mr. Fortier, Mr. Egan, the Hon. Mr. Merritt, and Mr. Cauchon, be appointed to examine and report upon the present system of management of the Public Lands and the various dues arising therefrom, together with the present mode of selling, leasing and otherwise disposing of the same, to report thereon with all convenient speed, with power to send for persons, papers and records."

The evidence taken by this committee covers a great number of points in relation to the lumber trade and forest management. The tenor of many of the answers received to the questions submitted by the committee are full of suggestion regarding the problem as it presents itself to-day, and show that the various phases of the question were at that time becoming better understood and receiving more intelligent consideration than in the earlier days of the trade.

Loss of Timber Dues Through Squatters.

One of the most conspicuous abuses of the system to which frequent reference has been made, was the cutting of timber by settlers and squatters, either under the colorable title of purchase or otherwise. As has been seen the profuse granting of land far in excess of the requirements of settlement, prior to the outbreak of 1837, and the consequent low price of land for some time afterwards, brought about a state of affairs under which it was frequently cheaper to buy timbered areas outright for lumbering purposes than to pay the Government dues.

In later years the conditions of sale remained so exceedingly liberal that advantage was frequently taken of them to obtain possession of the land by payment of a small instalment of the purchase money for the sole

purpose of exploiting the timber. Under the regulations for the sale of public lands which prevailed at the time of the enquiry, the price varied, according to location and character, from three to ten shillings per acre. In the case of the higher priced lands in Western Upper Canada the money could be paid by instalments covering a period of ten years, only one-tenth being demanded in cash. Although the regulations strictly prohibited the cutting of timber, except where necessary for building, fencing and clearing, they were in many cases set at defiance.

William Sprague, of the Crown Lands Department, in a letter to the committee, after recommending that all ordinary Public Lands in Upper Canada should be placed at a uniform rate of five shillings per acre, thus refers to the timber difficulty:—

"Of the purchase money it is desirable that a sufficient proportion shall be paid down, to guard against the land being plundered of its timber and then abandoned, which there is reason to believe is the course often pursued under the present system of one-tenth payments. Accordingly I would substitute payments of two-fifths, relieving the settlers from any further payment until the expiration of three years, by which term it may be assumed that from the produce of his land he would then be in a condition to pay a further instalment of another one-fifth.

Settlement Difficulties.

"Before concluding this letter it becomes advisable to refer generally to the privilege of cutting and disposing of timber and other merchantable wood, previously to the land being paid for in full. For the reason that the present system of one-tenth instalment conveys by a payment to that extent a species of right to the land, or a claim, the weight of which others not concerned do not choose to dispute, and under cover of which it is understood parties in many cases despoil the land of its timber, notwithstanding the prohibition to the contrary, and having accomplished their object will, in those cases where the land is not of superior quality, probably make no further payments. It is suggested that a permit to cut timber and merchantable wood be given to purchasers, under the system proposed, upon their depositing with the local agent, upon obtaining such permit, the amount of duty in advance upon the quantity of timber to be specified therein; as authorized to be cut and removed, the amount so deposited to remain available towards the purchase in the event of the required quantity of land being duly cleared in the proportion and within the time prescribed and the conditions of the occupation fulfilled. But the amount to be forfeited if compliance with the terms of settlement be not rendered, and also any fraud or mis-statement as to the quantity actually cut to render void the permit and have the effect of cancelling the purchase, forfeiting such sums as may have been paid in on account of it, and rendering liable to seizure all timber and wood, particularly in the permit, or assumed to have been cut under its authority and which can be attached.

"For the prevention and punishment of fraud, it is often found advisable to fence in by strongest regulations the public rights, and probably there is no description of property which requires to be so carefully guarded as the Public Lands and timber."

• A. T. Galt.

Hon. Alexander T. Galt, who in his capacity as manager of the British American Land Company, addressed a letter to the committee, expressed himself in favor of the American system of selling the Public Lands at a

low price for cash only. He regarded the denial of the right of the bona fide settler to sell timber as a hardship. "The plan adopted in my own management," he wrote, "and which I think might be followed with advantage, is to require the party purchasing the timber to account for it at the usual rate of stumpage, and the amount is thereupon passed to the credit of the purchaser of the land."

The Reciprocity Treaty.

Further observations made in this communication deal with a question, which was assuming prominence in connection with lumbering operations in consequence of the existing and prospective development of the export trade to the United States on a large scale. The adoption of the Reciprocity Treaty in 1854 securing the free exchange of the natural products between Canada and the United States, including "timber and lumber of all kinds, round, hewed and sawed, manufactured in whole or in part," stimulated considerably the growing demand in the United States for Canadian lumber. In proportion as the market for sawn lumber developed, the cutting of square timber, for long the leading branch of the industry, declined in importance and became less essential to the prosperity of the lumbering interest. The disadvantages of the square timber trade as compared with that of sawn lumber, more especially its wastefulness and the greater danger of forest fires involved by the debris and litter left in the woods, began to attract attention. Hon. A. T. Galt's remarks on the question in the letter before mentioned are as follows:

Square Timber Wasteful.

"Timber trade of Canada until the development of the American market, was almost confined to the export of square timber and deals. Apart from the indirect advantages of thus employing a large number of ships giving cheap passage to emigrants, I have always regarded the export of square timber as a profligate waste of one of the greatest sources of Provincial wealth. I believe it is at this day entirely unnecessary to enter into any argument to prove that the value of our forests to the country is precisely in proportion to the amount of labor expended in preparing the timber for market, and that therefore the more crude and raw state in which it is exported the less value the trade is to the Province.

"It must be conceded that it is most desirable to adopt such a policy as will cause capital, skill and labor to be most generally embarked in the trade, and this can only be done by holding out in the disposal of the timber, greater inducements to manufacture it into sawn lumber than into square timber, which latter wastes the finest portion of the wood, and represents the smallest amount of fixed capital and labor in its preparation.

"The importance of this distinction it appears to me, has never been sufficiently realized in the conditions under which timber limits have been disposed of. And I would strongly urge the consideration of it on the Committee with the view of their recommending such rates as may have a tendency to induce the export of timber in a manufactured state. One of two things must at present arise, either an inadequate rate must continue to be charged for saw logs, or an absolute bonus must be given to encourage the manufacture of that class of timber which is least valuable to the Province.

Rates of Dues too Low.

"I regard the present rates charged by the Crown for timber, as generally much too low, and believing that an increase would fall, not on the trade, but on the consumer, I suggest an immediate and considerable advance, which, if it should have the effect of causing greater attention to be given to the manufacture of sawn lumber, would tend to the more rapid settlement and prosperity of the great Ottawa Valley. Undoubtedly the increase of our lumber trade with the United States will be in the direction of sawn lumber, and it fully justifies the Government in seeking to obtain a price commensurate with the increased value of the timber."

An Official View.

Mr. Spragge, Chief Clerk of the Crown Lands Department, in a statement prepared for the committee, as to the cost of managing the public domain, with suggestions for changes in the direction of efficiency and economy, thus dealt with the question :

"There is yet a subject to which I will take leave to allude, entitled, I think, to special attention. Those who have taken a real interest in the timber and lumber trade of Canada will be in a position, provided they have given due attention to the subject, to weigh the relative advantages of shipping the products of our forests in the form of squared timber, or in the more valuable and prepared form of deals and other sawed stuff. In perambulating land where timber has been made, as the expression goes, it is impossible to be otherwise than struck with the enormous amount of valuable wood which the axeman separates from the stick of timber, which, by the process of squaring, he is fitting for exportation, and which remains where it was detached from the square piece, and in process of time uselessly rots upon the ground. A bend in the tree or any small defect some distance up the trunk consigns all above one or the other to the same useless destiny of rotting upon the ground, which befalls the blocks which the axeman cleaves off, in reducing the round trunk to a square, and all but the superior trees and those which will make a piece of timber of a given length and square, remain unused.

"In cutting the short saw logs intended to be worked into deals, and other stuff manufactured in a saw mill, it is evident that the proportion of each tree, which can be converted into an article of export, may be estimated at fully three-fourths more than could be rendered available for market by making the tree into hewn timber, and many trees rejected as unfit for timber, would cut up into saw logs, were the land divested of its timber trees for that purpose, instead of the other,—and I think it may be reasonably computed that an acre of white pine would bring back to the Province, when converted into deals and other sawed stuff, a return three-fold greater than if exported as hewn timber. With this of course the superior value of the cubic foot of sawn timber would have something to do. And again, it should be kept in view, the more extended employment conferred upon the laboring population in preparing for the foreign market the cargo of the ship freighted with sawn stuff, beyond that expended upon the freight of the timber-laden ship. Add to this the employment that mills afford to artizans, and the advantage to the farmer resulting from the greater home consumption of produce, induced by one system of export rather than the other; and sound reasons deducible from the various circumstances combined, will be found for fostering and encouraging the shipment of the pro-

duce of our forests, when prepared for exportation as deals or other sawn stuff in preference to their being sent from the Province in the shape of timber.

Drawback Proposal.

"There is one way, which occurs to me, in which this seemingly desirable encouragement could be afforded, that is, by allowing a drawback to the shipper equal to one-third of the duty leviable. When it is taken into account that the duty paid by the lumber merchant upon what he takes off from every acre (using up everything which he can prepare for export) is probably more than three-fold greater than would be paid by the timber merchant were he to make timber upon the same piece of land; from the circumstance that of necessity he rejects or wastes what the other had no difficulty in working up; the lumber merchant appears to have a species of right on his side to the mark of consideration for his branch of trade, which the allowance of a drawback would indicate.

"It is unfortunately too much a matter of certainty that what used to be designated our inexhaustible supplies of timber are rapidly disappearing, and sound policy would suggest that inducements should be offered for economizing that which still stands in the forest; and in addition to those which I have already named for the following among other reasons: The British capital invested in our railways, and in Provincial and Municipal loans, must ere long lead to an annual drain in very considerable sums in the way of interest and profit, and the large amounts hitherto yearly brought into the country and expended for military purposes being about to cease will, both the one and the other, tend to render it more difficult than ever to balance our accounts satisfactorily with Europe. To export all our products in a shape and form such as to increase their intrinsic value cannot but be a matter of the greatest moment; and I believe that in recommending the allowance of a drawback on deals and other sawn stuff I am advocating a measure worthy of serious consideration."

The System in United States.

The differences between the Canadian and American systems of disposing of the timber were thoroughly discussed during the course of the investigation. The exposition of the methods pursued in the United States rendered it abundantly evident that whatever defects might exist in the Canadian system it was much superior to that of the United States in the matter of preventing the monopoly of natural resources by comparatively few individuals and securing to the public treasury returns in some measure proportionate to the value of the privileges granted.

Jonathan R. White of the State of Michigan, explained to the committee the system adopted in the United States for the sale of public lands and timber as follows:

"The land districts, which are established by Act of Congress, having been surveyed, measures are taken for the sale of the lands by the appointment of a Registrar and a Receiver. The Registrar is supplied with all necessary information respecting the lands. He receives the applications and issues his certificates of application, but receives no money. The Receiver receives the money for lands, transmits it immediately to Washington with name of purchaser, in whose favor the patent at Washington is then transmitted to the Registrar of the land district for delivery. On the

appointment of the Registrar and Receiver the lands are declared by proclamation of the President as open for sale, and a public auction is advertised to take place at the Registrar's office in the land district at the uniform, fixed upset price for all the public lands in the United States of one dollar

No Limit to Quantity.

and twenty-five cents per acre. Such lands as are not sold at auction are therefore open for sale to any applicant at the upset price. Neither at the first auction sale nor afterwards is there any limitation as to quantity that may be bought. The lands are all sold for cash. By Act of Congress of last year a graduated scale of prices has been fixed, whereby lands remaining unsold for a certain number of years may be disposed of at lower rates than one dollar and twenty-five cents. A party desirous of purchasing makes application in writing to the Registrar, who, in the absence of other claimants, issues a certificate in his favor, with which he proceeds to the Receiver and pays the purchase money."

The following answers made by Mr. White to questions submitted by the Committee explain the working of the system as it affected the lumber industry.

"Will you state the mode in which timber is disposed of?" "The Government do not permit the sale of timber on public lands, and agents are expressly appointed to prevent depredation. The purchase of the land is the only mode in which timber can be obtained."

"Do you consider this a good plan?" "I do. It aids the sale of the lands, making them subject to taxation and encouraging the settlement of the country, also promotes the saving of the timber, which, under the stumpage system, will always be more or less wasted. The lands are generally fit for settlement after the timber is removed."

"Supposing the land to be of little value for agricultural purposes, would you still consider it expedient to sell the land and not the timber by stumpage?" "I would not. If the land be of little value except for the timber, it is the greater reason for selling it, especially as if sold the timber will be more economically applied."

Objection to American Plan.

The Canadian lumbermen and Crown Lands officials who gave evidence clearly pointed out the defects of the American system as set forth by Mr. White.

"I have read Mr. White's evidence," said David Roblin, an experienced lumberman," and am decidedly of the opinion that the plan he proposes would at once place in the hands of the rich and opulent capitalist all the good lands of the Crown, or would lead to the formation of private companies for the purpose of purchasing the whole of them; once in the hands of wealthy individuals or companies they would immediately ask a large advance upon the cost and sell them on time to those that actually cultivate and improve the lands, and who have no other resource but to submit and to pay such fines as were demanded or seek elsewhere for more favorable terms to obtain a living for themselves and families, * * * With reference to Mr. White's remarks respecting the disposal of timber on the public lands, it is quite evident that he knows very little of the subject upon which he speaks or of the amount of duties paid on timber here. He says it is even better to sell lands that are not fit for agricultural purposes than to sell the timber. Now take the plan which he proposes, viz., selling the

land in the United States at 6s. 3d. per acre, and suppose these lands were timbered, it would take 150 feet of pine timber at $\frac{1}{2}$ d. per cubic foot (the Government duties) to pay for an acre of land, about two trees to the acre of a very ordinary size, being only 75 feet average. Now it will be observed that if the Government only get duties on two trees to the acre they get this price with the land left, which is certainly worth something even should it be given to an actual settler. But the fact is one acre of good timbered land will afford on the average at least about five times the quantity above mentioned. His remarks on this score may be quite applicable to prairie lands, where little or no timber is to be found, but can never apply to lands where there are to be found 150 feet on an acre, and the price according to his estimate. I may add that I have only taken pine timber in the above calculation, which pays a much less duty than other descriptions such as oak, elm, etc."

Andrew J. Russell, Crown Lands agent at Bytown, urged that past experience was strongly against the uncontrolled acquisition of land in blocks. "Were such a blight," he said, "to fall on the lands fit for settlement on the Ottawa it would check the consolidation of the Province as an inhabited country, and be injurious to its unity and strength. For there, as the chief value of the land is in its timber forests, we know it would be for that it would be purchased by speculators; the soil would be little thought of. The lumbering which is causelessly complained of now would then certainly be the governing interest and settlement be entirely at its mercy. Government would have lost all control of the land which it now retains and the immediate interest of the speculator would overrule the interest of the Province. * * * The unconditional sale of lands could not possibly forward settlement more than the present system—would be advantageous to the speculators but fatally injurious to the revenue and might, by checking settlement, be injurious to the welfare of the Province."

Private Ownership.

How well-founded these objections to the American system were has been amply shown by the experience of later years. The alienation of extensive tracts of the public domain of the United States has not promoted economical methods of lumbering with an eye to maintaining the productiveness of the forests for the benefit of future generations. On the contrary it has resulted in large regions adapted by nature for tree-bearing, but otherwise unproductive, being stripped entirely of their vegetation with the object of realizing immediate profit and turned into barren wastes, while the fact that the ownership of the soil remains vested in private hands is a serious obstacle to such comprehensive plans of reforestation as in the light of the increased knowledge of the subject and the urgent necessities of the case might otherwise be undertaken. In those instances where it is sought to accomplish something in the direction of setting aside forest reserves, the State governments either find their schemes confined within narrow limits or rendered abortive by the conflict with vested rights which should never have been accorded, or find themselves compelled to repurchase at a heavy cost the lands necessary for their purpose.

Early Forestry Advocates.—Bogus Settlers.

The evidence of several of those who testified before the committee shows that practical men at that time realized the desirability of maintaining permanently in timber the non-agricultural regions and understood that

the principal danger to the stability and permanency of the lumbering interest was the opening up for settlement, or the toleration of squatters upon the lands especially adapted for forest reserves. Criticizing an observation made by Mr. Sprague, Mr. A. J. Russell said "he is also mistaken in saying that the lumber trade is but a temporary branch of trade of which a few years more will probably see the end. In the region of which he speaks the quantity of arable land is comparatively small, much must forever remain a forest country, of which its timber will continue a staple all the more valuable for its becoming scarce elsewhere and will continue to give an increased value to farm produce there. * * * It is not desirable to have forest tracts wholly unfit for settlement surveyed into subdivided townships. The expense is lost to the public and the subdivision offers facilities for the plundering of timber from the adjoining Crown Land under the pretence of settlement on the lots purchased by them (unless duties be levied as I propose on all timber from lands in future sold). It also offers some temptation for settlers to occupy inferior lands where they cannot afterwards prosper, for the temporary profit of the timber, and where the fires they occasion in burning choppings at unsuitable seasons certainly increase the destruction of the standing forests. As to the protection of the public domain from fire, I am afraid but little can be done. The sale of forests to private individuals would have but little effect that way, for the license holders have now already as great an interest in preserving the timber as if they were proprietors. The only practicable measures I can think of are, to enforce the law against burning brushwood during the season when danger is greatest from fire, making the offence a misdemeanor punishable by fine and imprisonment and giving a reward to informers. The injury to settlements as well as to the public forests on the Ottawa would justify

Forest Lands to be Surveyed.

additional rigor. And the discouragement of the practice of squatting in the timber forests, which would be best effected by surveying and throwing open for settlement at a low price such tracts of land only as are really fit for cultivation. Especially endeavoring to draw settlers of all kinds back into the hardwood country on the headwaters of the western tributaries of the Ottawa, by the opening of practicable roads and a survey of a sufficient quantity of land there for settlement. Giving no encouragement to settlement in the timber tracts, except where necessary for the maintenance of roads unavoidably leading through them to a better land."

William Hamilton, lumberman, in reply to a question as to the prevalence of forest fires and the best method of preventing them, said:

"The most certain way of preventing the destruction of timber by fire is that Government should put a stop to squatters entering into the land of the Crown (either surveyed or unsurveyed) without the consent of either the nearest local agent or that of the Government, as there is sufficient land of equal, if not better, quality unoccupied in the front townships. The only cause of destruction of timber has arisen from such settlers and I am satisfied that there is annually destroyed as much, if not more, timber by fire by such settlers than arrives in the Quebec market yearly."

The following extract from the evidence of James Henry Burke of Bytown, sets forth very clearly the mutually advantageous relations existing between the lumbering and the agricultural interests, and also emphasizes the view more positively and comprehensively brought out during the course of this investigation than in any previous treatment of the subject, that a radical and essential difference in the administrative system

in dealing with agricultural lands and non-agricultural lands respectively, was not merely warranted, but necessitated to insure justice to both these interests. The weakness of the American method, or any system that approximates to it, in including non-cultivatable forest-covered land in the same category as soil capable of profitable tillage, is that in treating the timber as a mere appendage to the land, instead of a feature giving a distinct and specific character to the region producing it, the interests of the public and posterity are almost certain to be sacrificed to the immediate profit of the purchaser.

Lumbering—An Aid to Settlement.

To the question, "What effect has the present system on the preservation of the forest, and on the settlement of the waste lands of the Crown?" Mr. Burke replied: "I think the present system has a tendency to conserve the pine timber, to spread a local market for the produce of the backwoods settler over the longest space of time, without which the settlement of several hundred square miles of your best territory can scarcely be made. We have an immense fertile territory stretching westward from Bytown to Lake Huron, and north-westward from Nipissing to Lake of the Woods, which, as a whole, is no way inferior to an equal area of some of the Eastern States of the Union. But our territory is a wilderness. In the centre of the country named lies the timber fields of the Ottawa, at present yielding their first crop, which goes to build up the cities of the east and west. Nature has so arranged it, that this pine-producing territory does not possess a fertile soil. Were it such, the axe of the settler would destroy the timber required to make the western prairies inhabitable, or to spread the comforts of civilized life over the forestless isles and continent of Europe. This pine territory has its allotted end, and will subserve; perchance beneath those far-stretching forests repose rich mines of metal to tempt man's arm to delve the earth when the dark green canopy, which shuts out sunlight, has disappeared.

"But mark this coincidence; surrounding this pine territory and contiguous to the great lumber fields, is the large area to which we have alluded, possessing a fertile soil and timbered with hardwood. This timber has not the commercial value of pine, and its destruction is not a national loss. This land is destined to sustain a large body of agriculturists in close proximity to the great timber making centres. It enables us to raise the grain, fodder and provisions, consumed in timber making, from eighty to ninety miles nearer the ground of consumption than we now do. While the lumber trade flourishes in pristine vigor population should be introduced, but let us not be understood to encourage the wanton, foolish and insane policy of the Crown Lands Department in surveying a township where nothing but pine and rock exist, or where to get a thousand acres of habitable land, settlers may be thrown in to spread fire and havoc through the pine forests; we go for keeping a fair line of separation between the lumbering and agricultural regions, as nature has laid it down. The whole bulk of the produce consumed in lumbering above Bytown is moved a distance of one hundred and two miles, we can shorten this distance materially. The moving of these supplies costs nearly fifty thousand pounds per annum—it is so much thrown away. Were the lumber market cut off from the people who now command it, immediately after our railways now in hand are completed, the country would be no loser. When good communication with the eastern seaboard exists and the Reciprocity Treaty secures our

equality with the Americans in their own markets, we can afford to leave the lumber market to an interior population. The sooner that market is supplied by the soil west of the seventy-seventh degree of longitude, the better for the country. All grain grown east of that will find as profitable an outlet to the eastward. To arrive at such a state of things we want a population of eighty or one hundred thousand additional souls laboring the productive soil of the interior, and to have this we must encourage immigration."



To Prevent Fires.

"What means would you suggest for the preservation of the forest from fire?" "Survey no townships on which the soil fit for farming purposes does not bear a certain proportion to the pine-covered soil, which in most cases is unfit for settlement, permit no isolated scattered settlers to locate amidst the pine forests, and forbid by general law, or municipal regulations, the burning of brush, etc., between the 4th of June and 4th of September."

The report of the Select Committee was made on the 18th of May, 1855, the two first paragraphs of which are as follows:

"That owing to the varied and extensive character of the subject referred to your committee, and the very important interests liable to be affected by such changes as might be recommended, it has not been possible to obtain sufficient evidence to warrant your committee in arriving at a definite conclusion and general report on the matters referred to them. They are, therefore, obliged to report the evidence obtained to your Honorable House, accompanied by the unanimous expression of their opinion, that important modifications of the present system are imperatively required, and they, therefore, recommend that the subject with the evidence herewith submitted, be again referred to a Select Committee of your Honorable House at the next meeting of Parliament.

"With reference to the disposal of timber on the public domain, your committee strongly recommend, that no change whatever be made in the terms upon which present limits are held, pending the final decision of your Honorable House in reference to this most important question, as it is their unanimous opinion that, until the system is determined upon and regulated by Act of Parliament, a change of the present regulations would be detrimental to the public interests."

Ground Rent.

The ground rent system adopted under the Timber regulations of August 8th, 1851, was modified by an Order-in-Council of the 20th of August, 1855, providing "That the extreme amount of ground rent payable as a penalty, over and above the single rent in any case of non-occupation shall not exceed the minimum amount the berth would produce in duties (on square timber) if duly occupied according to regulations; but this limitation not to affect timber berths acquired since the ground rent system was in force by competition thereon, or other special regulation and not to imply but what the Government may raise the rents or increase the duties, as the future circumstances of the trade may render expedient."

The terms of this Order-in-Council clearly indicate the determination of the Government to guard against any assumption that the purchase of timber limits subject to a ground rent conveyed such a vested right, either moral or legal as would preclude the imposition of new conditions or increased payments whenever it might be deemed advisable.

Regulations Subject to Change.

From the very outset the settled policy of the Crown in dealing with the holders of the timber licenses has been to maintain unimpaired the right of Government to vary at will the terms upon which the limits were held from year to year, the claim of the licensee extending no further than the working of his limit under whatever regulations might be imposed. The continuous enjoyment of any franchise or privilege has always the tendency to create a vested right, unless the interests of the public are jealously safeguarded against such an implication, and it is fortunate that the position taken by Canadian administrations on this question has been sufficiently clear and positive to prevent the conditional usufruct of the lumberman gradually lapsing into practical ownership.

Up to this time there had been no regular official reports for the information of Parliament and the country as to the operations of the Crown Lands Department, details as to the proceedings of this very important branch of the public service being principally obtained in the form of special returns. On the 5th of May, 1856, on motion of Hon. A. T. Galt, the House of Commons adopted the following resolution:

Annual Reports.

"Resolved, that it is the opinion of this House, that the Commissioner of Crown Lands should submit to this House an annual report upon the Department of Public Lands, made up to the 31st of December of each year; to be presented on the 15th of February following if the House be then in session or at the meeting of Parliament succeeding."

From the first annual report of the Commissioner issued in accordance with this resolution, for the year 1857, it appears that an Order-in-Council adopted in that year effected a change in the system of collecting ground rents, postponing the payment until the 30th of April.

The subject of the adequate protection of timber growing on private lands from spoilation or damage engaged the attention of Parliament during the session of 1860, resulting in the passage of "an Act for the further protection of growing timber," the main clauses of which are as follows:

Protection of Timber.

1. "If any person steals or cuts, breaks, roots up, or otherwise destroys or damages, with intent to steal or unlawfully carry away, or procures any person or persons to steal or to cut, break, root up, or otherwise destroy or damage with intent to steal or unlawfully carry away, any tree or sapling, standing, growing or being on the lands of any other, the injury done to such other person thereby being in amount more than ten dollars, every such offender being convicted thereof shall be guilty of a misdemeanor, and shall be punished at the discretion of the Court by fine, not exceeding the sum of one hundred dollars, or by imprisonment in any common gaol for a term not exceeding six months, or by both; and the said fine or any portion thereof, the Court may in its discretion award to the person injured.

2. "If any person receives or purchases any tree or sapling, trees or saplings, or any timber made therefrom, exceeding in value the sum of ten dollars, knowing the same to have been stolen, or unlawfully cut or carried away, such receiver or purchaser shall be guilty of a misdemeanor, and may be indicted and convicted thereof; whether the principal offender

has or has not been convicted, or be or be not amenable to justice and shall be liable to the same punishment as the principal offender."

The remaining sections provide that the Act shall not affect any civil proceeding against the offender, or prevent the adoption of other criminal proceedings.

A more stringent measure was adopted, applicable to Lower Canada only, by which it was provided that any person found in a forest reserved for firewood, sugar-making or other purposes, or on any road in its vicinity, with any tree or part of a tree in his possession, might be taken before a justice of the peace and, in case of failing to satisfy the latter that he came lawfully by the property, fined not more than eight dollars over and above its value.

Increasing Revenue.

The report of the Hon. P. M. Vankoughnet, Commissioner of Crown Lands for the year 1859, presented in 1860, contains some interesting details as to the development of the system and the expansion of the lumber industry. The amounts accruing due for ground rents, timber dues, and slide dues for four years were as follows:— 1856, \$262,872; 1857, \$289,839; 1858, \$232,624, and 1859, \$316,656, indicating a steady increase in the volume of the output. The Commissioner said concerning the adoption of the auction system:—

Auction Sale Results.

'Whenever there has been any demand for timber berths, and it was at all likely that any competition for them existed or would be excited, recourse has been had to the plan of disposing of them by public auction. This method has been attended with the best results in the St. Maurice territory where a sale was made last fall. Fourteen berths, containing an area of 572 square miles, were sold, realizing the sum of \$2,569 for bonus and ground rent, besides the sum of \$457.50 payable to the St. Maurice Road Fund. The bonus varied from \$5 to \$1,200. The berths were disposed of to practical lumberers, who are all working them this winter, thus restoring to the St. Maurice a trade which had departed almost entirely from it. This sale was made under regulations, different from those which had been previously in force in that section; a simple bonus, payable at the time of sale, in addition to the ordinary ground rent being called for as the measure of competition.'

Land Sales to Speculators Cancelled.

The fraudulent cutting of timber by squatters and pretended settlers continued to be a source of trouble to the administration in spite of all efforts to repress the practice. On this point the report said:—

"While every means at the disposal of the Government is employed to facilitate settlement, strong measures have been adopted, as the occasion presented itself, to check the inroads of individual speculators upon particular localities, under pretence of settlement, when in reality their only object has been to despoil the land of the timber. The Department has not hesitated to cancel sales thus obtained when the facts have been established. The holders of timber limits are often subjected to attacks of this description by parties who enter upon their limits, select the best timbered

lots, and effect purchases of them, subject to conditions of settlement which they have no intention of fulfilling. This, though illegal, can no more be prevented, when parties are determined to infringe the law, than can stealing."

Setter's Timber to Apply on Purchase.

The same abuse received a good deal of attention at the hands of the Department during the year 1860, when energetic measures were taken by the Commissioner to abate the evil. Previous regulations for the sale of public land had somewhat contributed to foster the abuse, for while the settler was permitted to cut down and burn any timber in the course of clearing the land, if he sold any of it he became liable to be treated as a trespasser. The evident absurdity of such a regulation, coupled with the difficulty in enforcing it, naturally led to its being set at defiance and encouraged a spirit of lawlessness and antagonism to the authorities, which led to other inroads upon the forests. New regulations were issued under which the settler was allowed to cut and sell the timber growing on the lot purchased by him, provided the value of the timber was applied in payment of the purchase money due the Crown, and that conditions of settlement, including the building of a dwelling 16 by 20 feet, the clearance of five out of every hundred acres and actual residence for six months had been fully fulfilled. He was also required to take out a license and pay a fee of \$4. In his report for 1860 Hon. Mr. Vankoughnet thus refers to the extent to which plundering of the public domain was still carried on:—

Trespassers.

"As a further step towards legitimizing the lumber trade, I have found it necessary to put in force the existing laws of the country against trespassers in the public forests. Hitherto these forests have been treated in some sections of the Province as if they were public commons where everybody might enter and cut and slash as he pleased. When seasons of partial prosperity in the lumber trade arrived, a great rush into the manufacture of lumber, and particularly of hewed lumber, generally followed, nearly always resulting in over-production and in over-production too of a badly manufactured article. Instances have come to my knowledge this season of individuals of one section of the trade endeavoring to encourage this over-production by entering into contracts for the delivery next summer of from 75,000 to 100,000 feet of timber, notwithstanding that the party who undertook to furnish it had no timber berth of his own, and relied only on trespassing in the public forest, or in fraudulently obtaining timbered lots out of a lumberer's license to enable him to fulfill his contract. To allow this trespassing to continue would be injurious to the general interests of the trade and of the country; it would also be unfair towards the licensed lumberman who conforms to the law, and under its protection embarks his capital in making the many improvements necessary to enable him to get his lumber to market with advantage."

After referring to the antagonism arising between settlers and lumbermen, the latter complaining of the inroads of settlers upon the best timbered lots within their limits, while the settlers advanced as a grievance that lumbered-over lots came into their hands depreciated in value, the report pointed out the obvious remedy against this continued clashing of interests:

Proper Surveys.

"When any case of fraud on the part of a pretending settler has been established the Department has cancelled the sale and seized the timber cut on the land. In order, however, by more general action to do away as far as possible with the complaints alluded to, and to afford legitimate protection to both the interests mentioned, I have been endeavoring to effect discriminating and descriptive surveys with a view of ascertaining what lands are suitable for settlement, and what are not suitable, and what sections of the country may be reserved and advantageously laid off in timber berths."

Another abuse which Mr. Vankoughnet undertook to reform was the delay in the payment of timber dues, which resulted in a considerable accumulation of indebtedness, and in some instances in fraud, on the Department. To put a stop to the practice the 30th November of each year was fixed as the day for the payment of all timber dues. All amounts then unpaid were charged with six per cent. interest, and it was provided that if not paid before the following 1st of July the license held by the defaulter was to be forfeited. No lumber of any kind was to be exported before the dues thereon were paid. To prevent the practice of shipping lumber cut by trespassers on the public domain to the United States, which was extensively pursued, the co-operation of the Finance Department was obtained. Previous to obtaining clearances all vessels having lumber on board intended for the United States were obliged to furnish the Collector of Customs at the port of shipment with a certificate from the Local Crown Timber Agent that the claim of the Crown on the lumber had been settled.

Another Commission.

During the session of 1863 the lumber trade was again the subject of a Parliamentary enquiry. On the 15th of April the House of Commons adopted the following resolution: "Resolved, that a Select Committee composed of Mr. Dawson, Mr. Dunsford, Mr. McLachlin, Mr. Desaulniers, Mr. Haultain, Mr. Robitaille, Mr. McCann, Mr. Hooper and Mr. Scott be appointed to enquire into the state of the lumber trade in Canada, in relation to the settlement of the country, and the action of the Government in dealing with these interests respectively; to report thereon with all convenient speed, with power to send for persons, papers and records."

The time at the disposal of the committee was too short to enable them to go thoroughly into the subject, but they examined a number of witnesses and submitted some valuable evidence with a view to a continuance of the enquiry next session.

One point clearly brought out was the unsatisfactory working of the regulation permitting settlers to cut timber for sale on their lots, which operated as an inducement to settle upon land which was mainly valuable for its timber and not adapted for farming. The following conclusions were embodied in the report of the committee:—

"First in importance appears the fact that the existing law, under which the lumber trade of the Province in general is governed, has for several years back been continuously and systematically violated in the Crown Lands Department and an uncertain and ever varying action substituted for the fixed and definite provisions of law under the Statute.

"A former committee of this House, of which the Hon. A. T. Galt was chairman, in 1855, having had the subject under consideration reported as follows:—'With reference to the disposal of timber on the public domain,

your committee strongly recommend that no change whatever be made in the terms upon which limits are held, pending the final decision of your Honorable House, in reference to this most important question, as it is their unanimous opinion that until the system be determined upon and regulated by Act of Parliament a change of the present regulation would be detrimental to the public interests.'

"Your Committee entirely concur in the above and would further recommend that whenever even any minor change in the regulations may be thought advisable, it should be published for at least three months before any Order-in-Council be passed to give effect to it, so that the trade may have an opportunity of being consulted in regard to the change contemplated.

"With regard to the supposed difficulties between the lumber merchants and the settlers it appears by the evidence that no diversity of interest exists, but that the trade complains, not of the actual settler, but of those who make a pretence of settlement to break up their limits and secure the timber to which the outlay of their capital has given value.

"The actual *bona fide* settler in like manner, finds the operations of the lumber merchant to his advantage, by reason of the roads constructed and the market for his produce thereby afforded. Your Committee are of the opinion that where such a complete community of interest exists, there need be no difficulty in arranging a system to the mutual satisfaction of both parties. And here again your Committee find that the want of any definite rule is the cause of misunderstanding. The Crown Land Department should divest itself of the power of dealing specially with cases as they arise, and provide and enforce a general system alike intelligible to them all.

"It appears from the evidence that settlement has been unreasonably pushed in some localities quite unfit to become the permanent residence of an agricultural population. Especially has this been the case on some of the Free Grant roads and adjacent country, lying between the waters of the Ottawa and Lake Ontario. Your Committee would refer to the evidence and recommend that the Government should, in all cases, ascertain positively the character of the country before throwing open any tract of land for settlement, so that such lands that are really not fit for profitable cultivation, may not be thrown upon the market. There being considerable diversity of opinion among the witnesses in regard to some of the localities adverted to, it seems to the committee that the Government should have an examination made by some thoroughly competent and reliable officer, whose report would be available in any further consideration of this subject.

Tenure of Limits.

"Your Committee would further suggest to your Honourable House, that it would be advisable, for the protection of the public forests of the Province, the commercial value of which is of such vast interest to the country, that a character of greater stability be given to the tenure of timber limits, providing of course against its being made any barrier to the actual settler on lands adapted for cultivation."

During the session of 1864 an attempt was made to complete the work of investigation begun by Mr. Dawson's committee in accordance with the suggestion embodied in the report. On the 17th of March in that year the House adopted a resolution appointing a Select Committee composed of eighteen members, with Hon. Mr. Cauchon as chairman, "to enquire into the causes of the rapid destruction of our forests, and the means to be

adopted to prevent it, to consider the expediency of reserving as forests the extensive tracts of land which abound in exportable timber, but are unsuitable for cultivation; of enacting a Forest Law, and to suggest that system which in its opinion is best adapted to the requirements and conditions of the country." No report was ever made by this committee, the approach of the era of political storm and stress which immediately preceded Confederation, and the pressure of more immediate and exigent issues doubtless absorbing all the attention of the legislators.

In 1865 a change in the fiscal year came into operation, in accordance with which the Crown Lands and other departmental reports presented in 1866 covered the period from the 1st July, 1864, to 30th June, 1865, instead of coinciding with the calendar year. Hon. Alexander Campbell, Commissioner of Crown Lands, in his report for that year showed himself to be thoroughly alive to the necessity of an advanced forestry policy on the line of a strict discrimination between cultivatable and non-agricultural lands, and the setting apart of the latter as permanent timber reserves. The following paragraph sets forth his views on the subject:

Reserves Advocated.

"The value of a very large area of our remaining public lands, as a pine country, is well understood and has not been exaggerated. The exports of the products of the Canadian forests for the seven years terminating 31st December, 1863, deducting timber imported, were valued at \$73,004,312: the value of the products of agriculture consumed in the country I have no means of ascertaining, but the exports of such products during the same period, with a similar deduction, were valued at \$49,951,961. Though much of it has been denuded of its valuable timber, it is the opinion of the best informed that a large area remains untouched; happily for the interests of the country, the pine exists on lands for the most part unfit for settlement. It needs a careful discrimination between pine lands exclusively and lands fit for settlement, to place it in the power of the Government to conserve this valuable source of national wealth. Should the whole of our uncultivable lands be set apart, as I think should be done, as a pine region, and no sales made there, the land would, if the trees were cut under a system of rotation such as is now adopted in Norway and Sweden and in many of the German states, recuperate their growth of merchantable pine in cycles of 30 and 40 years, and pine growing might be continued and preserved for ages to come. In view of the future requirements of this continent and of Europe, and of the singular advantages Canada enjoys as a pine-producing country, I humbly submit that it is of the utmost importance that we should now take steps in this direction."

One result of the continued discussion of the subject and the inconveniences arising from growing scarcity of wood in the older settled portions of Lower Canada, was the passage of the following Act, applicable to that Province alone, which received the Royal assent on the 17th day of September, 1865.

The Act of 1865.

An Act to provide for the preservation of standing timber.

"Whereas in most of the old counties of Canada the inhabitants experience serious difficulty in obtaining wood for fuel and building purposes, and whereas it is advisable to profit by past experience, and to adopt measures while there is yet time, to prevent the inhabitants of new town-

ships from being subjected to similar inconveniences; Therefore Her Majesty, by and with the advice and consent of the Legislative Council and Assembly of Canada, enacts as follows:

Township Reserves.

1. Whenever it shall be expedient to erect into a township any certain extent of the waste lands of the Crown in this Province, it shall be the duty of the Commissioner of Crown Lands to set apart, in such township, a reserve of wood land, which shall form not more than one-tenth or less than one-twentieth of the superficial area of such township, and the limits thereof shall be fixed and defined at the time of the erection of such township, and the Commissioner shall, whenever he deems it expedient, make a reserve for a like purpose in all townships already erected and in which the Crown owns a sufficiency of wood land.

2. Such reserves may be in a single lot, or divided into several lots, according to circumstances.

3. And to provide for the difficulties which might arise respecting the rights and duties as between neighbors (*droits de voisinage, decouverts, fences, ditches and all others*) which the inhabitants residing on lots contiguous to such reserve might claim, the patents of the lots so situated shall contain a condition binding the proprietors, tenants and occupants of such lots, to renounce for ever any claim to all rights and duties as between neighbors (*droits de voisinage*), and a reduction may be made in the selling price of such lots in consideration of the disadvantages which might result from the preceding provision, if the Commissioner of Crown Lands deems it advisable.

4. The Governor in Council may transfer the control and management of every such reserve to such municipal or other authorities willing to undertake the same, as he shall think proper to select, and under such conditions as he shall impose.

5. Nothing in this Act contained shall have the effect of restricting in any way whatsoever, the rights, powers and privileges conferred by Chapter twenty-five of the Consolidated Statutes of Canada.

Lower Canada Only.

6. This Act shall apply only to Lower Canada."

This Act was allowed to remain a dead letter, and no timber reserves were ever set aside under its provisions. Here it may perhaps be advisable to depart from the chronological sequence of events relating to timber regulations and management in Canada, and follow up the course of legislation in regard to timber reserves in Quebec under Confederation. A short Act passed by the Quebec Legislature in 1875 provided that:—

Quebec Regulation.

"It shall and may be lawful for the Lieutenant-Governor in Council upon the recommendation of the Commissioner of Crown Lands, to set aside certain portions of the forest lands of the Crown, vacant at the time, to remain forest.

"The territories so set apart shall be reserved for the production and culture of timber, and shall be worked and managed and the timber thereon be cut, as shall be ordered from time to time by regulations made by the Lieutenant-Governor in Council.

"The timber cut from and upon such reserves shall be sold at public auction."

No action was ever taken under this Act as at first adopted, but in 1883 it was amended by the addition of several sections. The new legislation gave the Lieutenant-Governor in Council authority to set apart as a Forest Reserve "all the ungranted lands of the Crown now held under licenses to cut timber, except such parts of such licensed lands on which no merchantable pine or spruce timber grows, and which are fit for settlement, and also such other portions of the ungranted lands of the Crown as the Lieutenant-Governor in Council, on the recommendation of the Commissioner of Crown Lands, may think fit to set apart." No land so set apart was to be sold or appropriated for settlement purposes until after the expiration of at least ten years, and not then until it was established to the satisfaction of the Lieutenant-Governor in Council that the whole or any part of such territory could be thrown open with advantage. It was provided that in the renewals of licenses after a forest reserve had been created all land previously under license in the locality and not included in the reserve should be excluded.

Under the provisions of this measure a very large area in the western portion of the Province of Quebec running north to the Height of Land was by Order in Council dated September 10th, 1883, set apart as a forest reserve, with the exception of all lots situated in a number of townships included "which hereafter may be found (from inspection made by competent and authorized persons) fit for settlement and destitute of merchantable timber."

This action of the Government excited a great deal of opposition, especially on the part of promoters of Colonization Societies, and the objections raised to the operation of the system were so strong that in 1888 the legislation authorizing the setting apart of timber reserves was repealed and the following substituted:

"In future a timber reserve of twenty per cent. of each lot sold shall be made at the time of the granting of the location ticket or permit of occupation for public lands.

"The Commissioner of Crown Lands may determine, through his agent, the locality where the reserve shall be situated.

"The Lieutenant-Governor in Council may make all regulations not incompatible with this Act for the right to cut timber upon the reserve indicated; but the proprietor or the occupant of the lot upon which it exists shall, together with his assigns, remain the perpetual usufructuary of such land, with all the rights he may have as such."

This measure proved no more effective or satisfactory than previous attempts to solve the problem, as it altogether lost sight of the principle of distinguishing between agricultural and non-cultivable lands, and applying radically different methods of management. Its repeal in 1889 closes the chapter of Quebec's forest reserve legislation.

Regulations of 1866.

New Regulations for granting licenses to cut timber were issued on 13th of June, 1866, by which some important alterations were made as will be seen by a comparison of the following with the text of those issued in 1851.

CROWN TIMBER REGULATIONS, 1866.

1. Licenses for such vacant berths as the Commissioner of Crown Lands may see fit, together with all vacant forfeited timber licenses, shall be offered for sale at public auctions to be held half yearly in each Timber Agency, on the 10th of July and the 10th of January, (or on such other dates as the Commissioner of Crown Lands may fix by public notice) at an upset price of Four Dollars a square mile or such other rate as he may fix by such notice, and shall be awarded to the highest bidder making immediate payment at the time of sale; and if not then sold shall be granted to the first applicant thereafter making immediate payment of the upset price and ground rent. But in case of two or more applications for any such berth being received at the same time, it shall be immediately again offered for sale by public auction. Unissued Licenses already awarded, however, and such as may be awarded by the Commissioner of Crown Lands on existing grantable applications, under Regulations of 8th August, 1851, shall be granted on the terms upon which they have been or may be awarded. In the intervals between sales, licenses for new Timber Berths for which applications may be made to the Commissioner of Crown Lands, or Crown Timber Agent for the territory in which they lie, may be granted to the first applicants paying in with their applications the upset price and ground rent above mentioned. Not more than one berth to each applicant—the bonus to be returned should the berth be relinquished as valueless within six months without cutting timber on it.

2. Applications must be in writing and the spaces asked in them must be distinctly described in connexion with known points established by survey or boundaries already defined, or if in surveyed townships the lots and ranges must be stated.

3. No timber Berth shall be licensed in unsurveyed lands exceeding ten miles in length by five miles in breadth or fifty superficial miles in area and half that size in surveyed townships, the area to be estimated by the Crown timber agent or other authorized officer.

4. All timber licenses are to expire on the 30th April following the date thereof.

5. Newly granted Licenses, and renewals of licenses that have been duly occupied, shall be subject to a yearly Ground Rent of fifty cents each superficial mile of area included within their limits, estimated as before mentioned; but in computing the ground rent no license shall be charged at less than eight miles of area.

6. The Ground Rent to be exacted on the renewal of any license shall be double that of the preceding year if the berth licensed has not been duly occupied, increasing annually in that proportion while the berth continues unoccupied (excepting the year succeeding that in which the license has been first granted, if not in a surveyed township); but the so increasing ground rent shall not exceed the rate of twenty-three shillings and four pence a mile, (being equal to the lowest amount of duties on square timber the ground would yield if duly occupied, added to the rate of fifty cents first mentioned) reverting to the original rate on the berth being duly occupied. The making of an average of five hundred feet of square timber or 20 saw logs to the mile, to be considered as due occupation. No claim for reimbursement of ground rent over calculated to be entertained after the issue of license.

7. No timber berth shall be forfeited for the non-occupation of it, provided the increased ground rent on that account be duly paid; but any berth on which the increased ground rent is evaded by false statements as

to occupation, shall (after the holder of it has had an opportunity of being heard in opposition) be granted to the first applicant pleading such evasion before the first day of November and proving the same by the affidavit of a commissioned Surveyor before the first day of December following the date of the false statement made. If half occupation only be proved, the holder of the license may retain one-half the berth after it has been equitably divided by the Crown Timber Agent.

8. License holders who shall have duly complied with all existing Regulations shall be entitled to renewals of their licenses, provided they shall have made and delivered to the Crown Timber Agent of the locality, before the thirtieth day of September, or such prior date in any locality as the Commissioner may fix, sworn statements of the number and description of pieces of timber and saw logs cut by themselves or by others to their knowledge upon each of the berths held by them during the previous season: and shall have paid to the Crown, on or before the fifth day of December following, the ground rent payable for renewal of their licenses for the ensuing season; but should they fail to comply with these conditions in respect to any berths held by them, such berths shall thereby become vacant and the right to license therefor forfeited and they shall be sold at public auction or be otherwise disposed of as before mentioned, excepting that if double the ground rent otherwise chargeable be paid for omitting to furnish the statement above mentioned, and payment be made before the day of sale with ten per cent. in addition for each month of the delay in payment, the berth may be re-licensed to the former holder.

9. License holders desirous of obtaining renewal of license must make application for such renewal to the Crown Timber Agent of the locality before the 1st of July in each year, stating what berths have been duly occupied, failing which such berths shall be charged with the rate of ground rent payable on non-occupation.

10. Crown Timber Agents shall keep registers of all licenses granted or renewed by them and transfers thereof, which, together with their plans of licensed berths and vacant ground, shall be open for public inspection.

11. Transfers of timber berths to be in writing, and if not found objectionable by the Crown Lands Department, or agent for the granting of licenses, to be valid from the date on which they may be deposited in the hands of the latter; but no transfer to be accepted while the party transferring is in default for non-payment of dues on timber to the Crown.

12. Timber berths are to be described in new licenses as "not to interfere with prior licenses existing or to be renewed in virtue of Regulations" on the date of their first being issued. Where licenses clash, the one of more recent origin is to give way to that of prior date, computing back to the season it was last acquired at auction, or by grant from the Crown. And should any license, by error or defect in its description, be found evidently incompatible with the intention or regulations under which it was granted, the Commissioner of Crown Lands may cause it to be cancelled or amended.

13. The Inspector of Crown Timber Agencies at Ottawa, and any officer thereunto authorized elsewhere, shall, at the written request of any person interested, issue instructions stating how the boundaries of timber berths should be run to be in conformity with existing licenses. The surveys are to be performed at the expense of the parties requiring them, who must cause copies of the plans and field notes of the surveys to be delivered to the officer giving the instructions, subject to his examination and approval, to be paid for by him and kept on record by the Crown Timber Agent of the locality.

14. In cases of contestation as to the right to berths or the position of bounds, the decision of the Crown Timber Agent of the locality or the Inspector of Crown Timber Agencies, or other officer authorized by the Commissioner of Crown Lands, shall on notification thereof being given to the parties or their representatives on their premises, or sent to their address, be binding upon the parties unless reversed by arbitration commenced within three months of such notification.

15. To prevent delay or disputes as to arbitrators it shall only be necessary for the party thinking himself aggrieved by such decision to notify in writing to the officer who has given it, his dissent and the arbitrator he has appointed. It shall then be the duty of the officer who has given the decision to take the place of arbitrator on the other part, and in case of their not agreeing as to an umpire, should one be required, the Commissioner of Crown Lands shall appoint one, on request of either of the parties or either of the arbitrators—such arbitrators may receive evidence obtained subsequent to the decision and each of them and the umpire are to be paid five dollars for each day they are engaged on such arbitration, by the parties jointly.

16. Timber cut under license shall be paid for at the following rates, viz.:

	s.	d.
Oak and Walnut, per cubic foot	0	1½
Elm, Ash and Tamarac	0	1
Red and White Pine, Birch, Basswood, Cedar, Spruce, etc.	0	0½
Pine Saw Logs, each, 13½ feet long	0	6

or, ten cents per standard log of 13½ feet, 20 inches in least diameter.

Unmeasured culls to be charged at average of the lot they are in.

Spruce Saw Logs, each 13½ feet long	0	2½
Staves, Pipe, per mile	32	6
Staves, W. Indian	10	0
Cordwood (hard) per cord	0	8
Soft Wood, per cord	0	4

Railway Timber, Knees, etc., 10 per cent. ad valorem.

To be charged upon the quantities shewn by measurement under the direction of the Supervisor of Cullers, or Deputy Supervisor, at Quebec, or Montreal, or other place of sale or shipment, or by other reliable measurement, where that cannot be obtained, otherwise each stick of White Pine may be estimated as containing 70 cubic feet.

Red Pine as containing 38 cubic feet.

Other kinds of wood 34 cubic feet.

And when any license holder is in default for, or has evaded the payment of dues to the Crown on any part of his timber, they may be levied on any other timber of his, cut under license, together with the dues thereon.

17. All square timber, logs, deals, boards, or other stuff leaving the Agency in which it has been cut in any form, must be submitted to counting or actual measurement, and statements under oath must be furnished as to the quantities of timber and logs cut under license whenever required. Owners or lessees of Saw-Mills cutting under license must show by such sworn statements the total number of each kind and length of logs cut or acquired by them, and taken to their mills, or where left, each season, giving the number in standards also, and must prove by satisfactory affidavits on what lots, and how many on each lot, such as are from private lands, have been cut; clearances to be refused in case of non-compliance.

18. Before moving any raft or parcel of timber, lumber or saw logs from the agency in which it has been cut, the owner or person in charge thereof shall make report thereof to the Crown Timber Agent, making, if required, declaration upon oath as to the number of pieces of each kind of wood contained therein, and the number of cribs; and to exempt timber from private land, if any, from dues as Crown timber,—must furnish satisfactory affidavit stating what lots it was cut upon and how much on each lot,—whereupon he shall obtain a clearance from the Crown Timber Agent, stating the number of pieces in the raft or parcel, how many, if any, have been satisfactorily proved to be from private lands, and on how many, if any, the dues have been previously or then paid. On the arrival of any such raft or parcel at Quebec, or any intermediate place, or other port, for sale or shipment, the owner or holder of it shall make report thereof to the Collector of Crown Timber Dues, or Deputy Supervisor of Cullers, or other appointed officer, within forty-eight hours, and in addition to the quantity shewn by the clearance as subject to dues, any surplus timber beyond the number of pieces stated therein, on being ascertained by the Collector of Crown Timber Dues, Deputy Supervisor of Cullers or other authorized officer, if not satisfactorily accounted for, shall be held as having been cut upon Crown Lands and be subject to the payment of dues accordingly.

19. Parties omitting to report the departure of their rafts or other timber from the Agency in which they held license, or the arrival thereof at Quebec or Montreal or other port or place, for sale or shipment, within the Province as before mentioned, may be refused further license—and be subject to forfeiture of the timber for evasion of Regulations as provided in section 3rd of Cap. 23, of the Consolidated Statutes of Canada.

20. Occupants, grantees or purchasers of Public Lands who have not completed all conditions of sale, or grant, cutting timber without license (except for clearing, building or fencing thereon) or others doing so by their permission, shall be subjected to the penalties established by law for cutting timber without authority.

21. Persons evading or refusing the payment of timber or slide dues, or the final settlement of bonds or promissory notes, given for the same, or in default with the Crown Timber Office or Agent, also persons taking violent possession of disputed ground before obtaining decision in their favor, and persons refusing to comply with the decision of arbitrators or with Regulations established by Orders in Council, or who forcibly interrupt Surveyors, shall be refused further licenses, and their berths become disposable to others on the expiration of their licenses.

22. Licenses are to be granted on the annexed form in duplicate, the clause at the foot thereof must in the duplicates be signed by two securities and the description of each berth is to be written on the back thereof. The duplicates to be kept of record by the Crown Timber Agent.

23. Dues of all kinds on timber cut under license remaining unpaid on 30th November following the season in which it was cut, to be subject to interest from that date, but without prejudice to the power of the Crown to enforce payment of such outstanding dues.

The most noteworthy changes were the provision for regularly held and systematic auction sales for vacant timber berths, and the fixing of an upset price in all cases, upon the berths to be offered. The new regulations, moreover, were a good deal more stringent in the provisions designed for the prevention of fraud in evading the payment of timber dues.

Export Duties After Reciprocity.

The Reciprocity Treaty with the United States, under which, as will be hereafter shown, the exportation of forest products, more especially sawn lumber, had greatly increased, expired on the 17th March, 1866. By the new tariff, which came into force on the 27th of June, export duties were imposed on saw logs and shingle bolts shipped from Canada, excepting to any of the British North American Provinces, at the rate of \$1.00 on every thousand feet, board measure, for pine, and 50 cents for every thousand feet, board measure, for spruce. The first tariff adopted under Confederation during the session of 1868, imposed additional export duties on timber from the 1st of October in that year, as follows:—

Shingle bolts, per cord of 128 cubic feet	\$1 00
Stave bolts, per cord of 128 cubic feet	1 00
Oak logs, per M	2 00
Spruce logs, per M.....	1 00
Pine logs, per M.	1 00

Confederation.

By the Confederation of the British North American Provinces, consummated by the establishment of the Dominion of Canada on July 1st, 1867, the management of public lands and timber was relegated to the several Provincial administrations. The British North America Act, 1867, in defining the respective powers of the Dominion and Provincial Governments includes, among the subjects coming exclusively within the scope of the Provincial legislators, "The management and sale of the public lands belonging to the Province, and of the timber and wood thereon." As will have been noted, from the frequent references to legislative action and quotations of official utterances during the few years which preceded the union of the Provinces, a very considerable advance had been made in public opinion on the subject of forestry. The question was being intelligently studied in all its bearings by those charged with the responsibilities of legislation. Men were beginning to understand the true remedy for evils which had been developed, not so much by any positive neglect or misconduct on the part of those in charge of affairs, but rather as the result of crude, unscientific methods under which the distinction between the two classes of public land requiring essentially different systems of management was largely ignored. Public, or at least legislative and influential sentiment, appeared to be seriously aroused to the danger to the practical interests of the country to be entailed by the rapid disappearance of the forests covering the non-agricultural region and forming its only possible source of productiveness, and to be fast crystallizing in the direction of a system of scientific forest management, as distinct from methods of mere sale and exploitation.

Provincial Jurisdiction.—Agricultural and Forest Lands.

But with the advent of the larger and more agitating questions involving the rise and fall of parties, and culminating in the union of the previously isolated provinces, opening broader vistas for Canadian aspirations and enterprises, and introducing a host of additional responsibilities and fresh problems, it is not surprising that the matter of forest preservation was thrust into the background, and for many years thereafter received but

little attention. But it is certainly a curious illustration of the ebb and flow of public opinion, and the manner in which movements for the abatement of public evils or the promotion of needed reforms frequently subside after having attained a considerable headway, only to spring into activity again many years afterwards, when their former influence has been well nigh forgotten.

Revenues in 1866.

Some details showing the extent and principal characteristics of the timber industry at the time of Confederation may appropriately be presented. The report of the Crown Lands Department of Canada for 1866 gives the amount collected during that year for timber dues and ground rents as \$338,302, and for slide dues \$63,483. The total exports of forest products for the year ending June 30, 1867, are valued by the Trade and Navigation returns at \$13,948,648, as compared with total exports of agricultural products of a value of \$16,765,981.

Exports to United States.

Nearly all the exported forest products found a market either in Great Britain or the United States, the proportion consigned to each of these countries being nearly equal, as Britain received shipments to the value of \$6,889,783, while those sent across the border were valued at \$6,831,252. These figures indicate a very considerable change in the conditions of the trade during the course of the decade immediately preceding Confederation, at the beginning of which the British demand was double that of the Americans. The total exports of forest products to Great Britain for the three years 1854-5-6 amounted in value to \$18,288,702, while the aggregate shipments to the United States for the same period were valued at \$8,894,218. It will be seen therefore that at the time of Confederation the American demand for Canadian timber and lumber had more than doubled, while that of Britain remained comparatively stationary. The principal increase in the volume of the growing American trade was in sawn lumber. While "plank and boards" to the value of \$1,866,712 were exported from Canada to the United States in the year ending Jan. 5th, 1854, the same item figures in returns for 1867 to the extent of \$5,043,367. This development of the sawn lumber trade with the United States, while to a certain extent fostered under the favorable conditions of the Reciprocity Treaty, was no doubt in the main due to the rapid growth of population in the Eastern States, coincident with a gradual diminution in their home sources of supply, rendering it necessary for them to look to Canada for their requirements.

Export of Hemlock Bark.

In 1868 the Dominion House of Commons set on foot an enquiry into the best means of protecting hemlock timber from the destruction caused by the demand for hemlock bark for tanning purposes. A select committee was appointed on April 1st, composed of Mr. Pope, Hon. Mr. Dunkin, Hon. Mr. Wood, Hon. Mr. Huntington, Mr. Brown, Mr. Masson of Soulange, Mr. Joly, Hon. Mr. Beaubien, Mr. Senecal and Mr. Burpee "to enquire into and report upon the best means of protecting hemlock timber from destruction caused by those manufacturing the extract of hemlock bark and the exportation thereof from Canada." The report of the Committee, based on answers to questions submitted to a number of those having special inter-

est in the question or facilities for information in different parts of the country, presents some considerations which have a wider significance than their bearing upon the specific subject of the investigation, and are of general applicability to the problem of utilizing forest products with the minimum of waste and to the greatest advantage.

Extract of Bark.

The Committee concluded that the bark consumed in local tanneries was applied to a legitimate use, benefitting both the settler and the country at large; the settler was enabled to defray the cost of clearing the land by the sale of the bark and at the same time had opportunity to dispose of the timber to advantage, as the work of clearing gradually proceeded. The export of bark and the manufacture of "Extract of Bark" they regarded in a very different light. The quantity of bark exported annually from Canada to the United States was estimated at not less than 100,000 cords, which, at ten cords to an acre, represented 10,000 acres annually stripped for the supply of American tanneries. This process resulted in the wholesale destruction of timber, the trees being generally left to rot on the ground, largely increasing the danger of forest fires. The rate of consumption was, however, liable to be indefinitely increased by the establishment of works for the manufacture of "extract," capable of being transferred from place to place so long as a supply of the raw material was obtainable anywhere, which was likely to have a much more serious effect upon the hemlock forests, as the extract thus made could be sent to any part of the world, whereas the exportation of the bark was, by the cost of transport, limited to a comparatively small radius. It was argued on behalf of the manufacture that it furnished employment, distributed large sums in wages, and gave an impetus to other industries, etc., but while admitting the force of this contention the Committee regarded these benefits as more than counterbalanced by the wasteful and destructive nature of the industry. "One of these factories," says the report, "upon a basis of calculation afforded by those concerned in them, will consume all the bark available within a radius of about ten miles, at the present rate of consumption, within a period of from ten to twelve years, when it must be moved to a new field of operations. The injurious effect of its removal from the neighborhood will be such as to far more than counter balance any temporary advantage that may have been derived from a spasmodic and short-lived activity and enterprise; and the bark that would have sufficed to supply for an indefinite period, a tannery giving employment to the population, will have disappeared altogether. The loss to the country at large will also be serious. At present we have an ample supply of material for our tanneries, enabling us to compete successfully with other countries in the manufacture of leather: but if for the sake of encouraging the manufacture of the extract we suffer our-

A Transient Industry.

selves to be deprived of this advantage we sacrifice a permanent and most important manufacturing interest for one that, at the best, is but transient, and of slight comparative importance.

To Prevent Export.

The report concludes as follows:—"After a most careful consideration of the question, your committee can only come to the conclusion that unless some steps are speedily taken to check the wasteful and extravagant rate

of consumption now going on, that is really for the benefit of foreign countries at the expense of Canada, many years will not have elapsed before our own tanneries will be seriously crippled, if not closed altogether, for lack of that which we are now so freely giving away to others, we shall be no longer able to compete successfully with other countries in the manufacture of leather; and a large portion of our forest land will not only be denuded of that which constitutes its chief value, but will be rendered practically unfit for settlement. Under these circumstances, your committee feel it their duty to press upon the Government the necessity of adopting such measures as may be calculated to check the evil complained of."

The particular method favored by the Committee for dealing with the matter had been previously indicated in a brief preliminary report presented to the House on the 4th of May, which reads as follows:—

"Your Committee have made a careful enquiry as to the extent of the Hemlock forests in different parts of the country and the rate at which the consumption of bark is proceeding in connection with the tanneries, etc. They find that a very large proportion of the bark annually taken from the forest is exported to the United States, threatening in a very short time to diminish materially the supply for home consumption.

Export Duty Recommended.

"Your Committee, therefore, feel it their duty to urge upon the Government the expediency of imposing an export duty of one dollar per cord upon Hemlock Bark, with a view of checking the wholesale destruction of our Hemlock forests now going on."

No action was taken by the Government in the matter. The proposal met with the active opposition of the interests affected and a number of petitions against the imposition of an export duty from those engaged in the industry, and the farmers in the respective neighborhoods where it was carried on were presented, and as no counter agitation re-inforced the Committee's recommendation the subject was dropped.

Bearing on Present Problems.

The conditions disclosed by this investigation and the considerations influencing the conclusion reached by the Committee have been presented somewhat more fully than is warranted by the intrinsic importance of the enquiry, on account of their bearing upon similar questions of an international character, affecting the management of our natural resources, which are likely to arise with increasing frequency in the future. The case of the exportation of hemlock bark and extract presents a striking analogy to the question of the shipment of saw logs in an unmanufactured state—and the forcible presentation in the report above quoted of the injury sometimes involved to the permanent and substantial interests of the country by the toleration of a lucrative though temporary and wasteful exploitation of raw material to be manufactured abroad, is full of significance in its application to the existing situation.

UNDER CONFEDERATION.

The report of Hon. Stephen Richards, the first Commissioner of Crown Lands for Ontario, for the year 1868, contains the following paragraph relating to the Woods and Forests Branch.

First Provincial Timber Sale.

"The timber dues, ground rent and bonus accrued during the year amount to \$190,237. The total timber revenue collected on account of such accruals, and of the arrears of previous years, is \$234,209. Of this amount the sum of \$14,446 was received as bonus on the south half of the Township of Sherbourne, sold in two timber berths by public auction at Peterboro on the 23rd of December, 1868, Berth No. 1, covering an area of 20½ square miles (and which had previously suffered from fire and trespass) was sold at a bonus of \$249 per square mile. For Berth No. 2, covering an area of 18 square miles, a bonus was obtained of \$519 per square mile, being by far the largest bonus ever received by the Crown on a sale of timber limits in this Province."

The question of saw logs exportation, which has since assumed such prominence, cropped up during the first session of the Provincial Legislature, when on February 26th, 1868, on motion of Mr. Christie, a Select Committee was appointed to enquire into the nature of and extent of the exportation of saw logs, shingle bolts and stave bolts cut in this Province and exported from the Dominion as follows:—Hon. Mr. Richards, Messrs. McDougall, Paxton, Hooper, Cockburn and Christie. No report appears to have been made by the committee.

Increasing Revenues.

On January 9th of the same year, Mr. Rykert moved for returns showing details as to the number of timber licenses granted since 1860, and among the particulars asked for was, "so far as practicable what portions of said lands are fit for agricultural purposes?" The returns were brought down in due course, but no attempt was made to furnish any information as to how much of the area under license was of a cultivable character. Meanwhile the timber revenue of the Province was increasing by leaps and bounds. The report of the Commissioner of Crown Lands for 1869 stated that a more careful supervision over lumbering operations was inaugurated than was believed to have previously existed. Reference was made to the issue of new Crown Timber Regulations in April, 1869, by which the dues were raised fifty per cent. in excess of the former rates, and a uniform rate of ground rent fixed. The regulations also provided for the more satisfactory accounting for the timber and saw logs cut upon public lands. The accruals from timber dues, ground rents and bonuses during the year amounted to \$508,561, and the collections were \$435,397. This very substantial increase in the revenue was emphasized by a comparison between the results of Crown Lands management under the ante-Confederation Canadian administration, and under the new Ontario regime respectively, as shown by the following table:—

1. Timber revenue derived from the whole Province of Canada:—

The largest revenue for any one of the 10 years ending 31st December, 1866, was	\$386,656
The average yearly revenue during the 10 years was....	295,409

2. Timber revenue derived from Upper Canada alone:—

The largest revenue for any one of the 10 years ending December 31st, 1866, was	197,093
The average yearly revenue during the 10 years was.....	150,935

The timber revenue for the year ending December 31st, 1867, was	152,266
The timber revenue for the year ending December 31st, 1868, was	234,209
For the year ending December 31st, 1869	435,397

"In round numbers," concludes the Commissioner in a tone of justifiable exultation, "the timber revenue from the Upper Canada woods and forests is during the present year \$238,000, or say 120 per cent. in excess of the highest amount it ever reached in any one year previous to the 1st of January, 1867; and is \$48,000, or say 121½ per cent. in excess of the highest amount ever received from the whole of the Province of Canada in any year previous to the last mentioned date."

The new Crown Timber Regulations above referred to are as follows:—

Regulations of 1869.

1. The Commissioner of Crown Lands may, at his discretion, cause the limit lines of any timber berth under license, which have not been already surveyed, to be properly surveyed and run, the costs of such survey to be paid by the holder of the license, and where two or more licensees are interested in the survey, the Commissioner shall determine what portion of the costs of survey shall be paid by each, and such costs of survey shall be a charge upon the Timber Berth, to be paid with the ground rent before renewal of the License.

2. The Commissioner of Crown Lands, before granting any licenses for new Timber Berths in the unsurveyed territory, shall, as far as practicable, cause the section of country where it is intended to allot such Berths, to be run into Townships, and each Township when so surveyed shall constitute a Timber Berth, but the Commissioner of Crown Lands may cause such Townships to be subdivided into as many Timber Berths as he may think proper.

3. The Berths or limits when so surveyed and set off, and all new berths or limits in surveyed territory, shall be explored and valued and then offered for sale by public auction at the upset price fixed by such valuation, at such time and place, and on such conditions, and by such officer, as the Commissioner of Crown Lands shall direct by public notice for that purpose, and shall be sold to the highest bidder for cash at the time of sale.

4. All forfeited Timber Berths may be offered for sale on the second Tuesday in August in each year, by public auction, at such upset price and at such place as the Commissioner of Crown Lands may fix and appoint by public notice, or at such other rate as he may fix by such notice, and shall be awarded to the highest bidder, making payment at the time of sale, but should the said Timber Berth not be then sold, the same may be granted to any applicant willing to pay the said upset price and ground rent, or on such other terms as the Commissioner of Crown Lands may direct.

5. License holders who shall have complied with all existing regulations, shall be entitled to have their licenses renewed on application to the Commissioner of Crown Lands, or to such local agent as he may appoint for that purpose.

6. The Commissioner of Crown Lands shall keep a Register of all licenses granted or renewed and of all transfers of such licenses; and a copy of such registers, with a plan of the licensed limits, shall be kept by the Crown Timber Agent of the locality, and open to public inspection.

7. All transfers of Timber Berths shall be made in writing, but shall be subject to the approval of the Commissioner of Crown Lands, to whom they shall be transmitted for approval or rejection, and they shall be valid only from the time of such approval, to be expressed in writing.

8. Timber Berths are to be described in new licenses as "not to interfere with prior licenses existing or to be renewed in virtue of regulations." When the description of any berth or boundary, as given by any license, clashes with the description of any other licensed berth or territory, the license of more recent origin (tracing back only to the time when such license or any previous license, of which it is a renewal, was first granted) shall give way, and the Commissioner may amend or cancel such license wholly or in part, and substitute another in place thereof, so as to correct the description of the berth or limit intended to be licensed; and in all cases where any license has issued in error or mistake, or is found to be inconsistent with any other license, or inconsistent or incompatible with the regulations under which it was granted, the Commissioner of Crown Lands may cause it to be cancelled or amended, or he may refer all matters in dispute, with reference to the boundaries and position of Timber Limits, to arbitration, each of the contending parties to choose one Arbitrator, and the Commissioner of Crown Lands shall appoint an Umpire, naming a day on or before which the award of such Arbitrators or of such Umpire shall be made and delivered to the parties, and such award shall be binding on them.

9. Timber cut on limits for which license has been suspended or held in abeyance, shall be considered as having been cut without authority, and treated accordingly.

10. Occupants, locatees or purchasers of Public Lands, who have not completed all the conditions of sale or location, shall not, unless under Settlers' license or for clearing, building or fencing purposes on the said land, be permitted to cut timber or logs thereon, or to dispose of it to others. Persons found doing so shall be subject to the penalties established by law for cutting timber on the public lands without authority.

11. All Timber Licenses are to expire on the 30th April next, after the date thereof, and all renewals are to be applied for and issued before the 1st July following the expiration of the last preceding license, in default whereof the right to renewal shall cease and the Berth or Berths shall be treated as forfeited.

12. No renewal of any license shall be granted unless or until the Ground Rent, and all costs of survey, and all dues to the Crown on timber, saw logs, or other lumber cut under and by virtue of any license, other than the last preceding shall have been first paid.

13. All Timber Berths or limits shall be subject to an annual Ground Rent of \$2 per square mile, payable in advance before the issuing of any original license or renewal.

14. All timber, saw logs, wood or other lumber cut under any License now in force or under any License which may be hereafter granted, shall be subject to the payment of the following Crown dues, that is to say:—

Black Walnut and Oak, per cubic foot	\$0 03
Elm, Ash, Tamarac and Maple, per cubic foot	0 02
Red and White P'ne, Birch, Basswood, Cedar, Button- wood and Cottonwood, and all Boom Timber, per cubic foot	0 01 $\frac{1}{4}$
All other woods	0 01

Red and White Pine, Basswood, Buttonwood and Cotton- wood saw logs, per standard of 200 feet board measure	0 15
Walnut, Oak and Maple saw logs, per standard of 200 feet board measure	0 25
Hemlock, Spruce and other woods, per standard of 200 feet board measure	0 10
All unmeasured cull saw logs to be taken at the average of the lot, and to be charged for at same rate,	
Stave, Pipe, per mille	7 00
Staves, West India, per mille	2 25
Cordwood (hard) per cord	0 20
Cordwood (soft) per cord	0 12½
Hemlock Tan Bark, per cord	0 30
Railway Timber, Knees, etc., to be charged 15 per cent. ad valorem.	

15. The duties on timber shall be charged upon the quantities shown by the specification of measurement at the office of the Supervisor of Cullers at Quebec, or that of the Deputy Supervisor of Cullers at Sorel or Montreal, or by other reliable measurement, but where such actual measurement cannot be obtained, each stick of white pine timber shall be estimated as containing 70 cubic feet, Red Pine as containing 38 cubic feet, Oak 50 feet, and Elm 45 feet, and all other wood as containing 34 cubic feet.

16. All Licensees or occupants of Timber Berths shall furnish through themselves, their agents, cullers and foremen, to such agent or agents as the Commissioner of Crown Lands may appoint for that purpose, and at such time and place as such agent or agents may require, satisfactory proof upon oath as to the exact locality where all the Timber, Saw Logs, and other Lumber in his or their possession were cut, giving the number of pieces, and description of Timber, Saw Logs, and other Lumber cut by themselves and others to their knowledge upon each of the Timber Berths held or occupied by him or them respectively, designating what quantity, if any, had been cut on settlers' lands, giving the names of such settlers, the name of the Township, and the number of each lot and concession, exhibiting at the same time for the inspection of such agent or agents, the Books of count and measurement of such Timber, Saw Logs, and other Lumber under his or their control respectively; and shall, moreover, furnish such Agent or Agents all required information and facilities to enable him or them to arrive at a satisfactory determination as to the quantity and description of timber, saw logs, and other lumber made by them or him, or held in his or their possession respectively, on which the Government dues are chargeable; and in the event of such Agent or Agents deeming it expedient to cause such timber, saw logs, and other lumber to be counted or measured, the said Licensee or occupier of such timber berth and his or their Agents, cullers and foremen shall aid and assist in such count or measurement, but should such Licensee or occupier, or his or their Agents, fail to comply with these conditions, such Licensee shall forfeit all right to renewal of his License, and the berth or limit shall become vacant. And to enable persons who sell their timber under settlers' License to obtain their refund of dues, and timber cut on Patented Lands to pass duty free, it will be necessary for the parties interested to prove, on oath, taken before such Agent or Agents, and to his or their satisfaction, the number of pieces and description of timber and saw logs cut on each lot respectively. And in the event of such proof being deemed unsatisfactory, the said Agent or Agents, may determine the same by causing a strict count of the stumps to be made and then certifying according to such count.

17. The Commissioner of Crown Lands or any authorized Agent, shall at all times have free access to and be permitted to examine the books and memoranda kept by any Licensee shewing the quantity of lumber in board measure sawn by him from logs cut on his timber berth or berths, and failing to produce such books and memoranda when required to do so, will subject such Licensee to a forfeiture of his right to a renewal of his License.

18. When any License-holder is in default for, or has evaded the payment of dues to the Crown on any part of his timber or saw logs, such dues may be levied on any other timber or saw logs belonging to such defaulter cut under license, together with the dues thereon.

19. Before moving any raft, or parcel of timber, lumber or saw logs from the Agency in which it has been cut, the owner or person in charge thereof, shall report the same to the Crown Timber Agent making, if required, declaration upon oath, as to where the said Timber was cut, the number of pieces and description of each kind of wood contained in such raft or parcel of timber, and the number of cribs, stating at the same time, the number and description of pieces cut on private lands, also on lands under Settlers' License, giving the names of the owners or Licensees of such land, with the name of the Township, and number of each lot, and concession, and should such Crown Timber Agent not be satisfied with the correctness of such report, he shall cause a strict count to be made of the timber in such raft; and on being satisfied of the correctness of such report or count, the said Crown Timber Agent may grant a clearance, in due form, for such raft, stating the number of pieces and description of timber contained therein, distinguishing the timber cut on private lands and under Settlers' License, from that cut on the Crown Domain.

20. The owner or holder of any such raft or parcel of timber shall, within twenty-four hours after the same shall have arrived at its destination at Quebec, Sorel, Montreal or other port of sale or shipment, report the arrival of such raft to the Collector of Crown Timber Dues, or if at Sorel or Montreal to the Deputy Supervisor of Cullers, and should the said raft be found by the specification of measurement to contain a greater number of pieces of timber than is noted in the clearance, the surplus number of pieces, if not satisfactorily explained, shall be held as having been cut on Crown Lands without authority, and subject to the payment of dues accordingly.

21. Parties omitting to obtain their clearance at such agency, or omitting to report the arrival of such raft at its destination as above mentioned, may be refused further license, and may be subject to forfeiture of the timber for evasion of regulations, as provided in Cap. 23 of the Consolidated Statutes of Canada.

22. Persons evading or refusing the payment of timber dues, or the final settlement of bonds or promissory notes for the payment of such dues, or in default with the Crown Timber office or agent; also persons taking forcible possession of disputed ground before obtaining decision in their favor, and persons refusing to comply with the decision of arbitrators or of the umpire, as provided by the 8th section of these Regulations, or with the Regulations established by Order in Council, or who forcibly interrupt surveyors in the discharge of their duty, shall be refused further licenses, and their berths shall be forfeited at the expiration of the then existing license.

23. Dues of all kinds on timber cut under license remaining unpaid on the 30th November following the season in which it was cut, shall be subject to interest from that date, but without prejudice to the power of

the Crown to enforce payment of such outstanding dues at any time the Commissioner of Crown Lands may think proper.

These regulations were amended by Order in Council dated the 18th of May, 1899, by the substitution for Sec. 10, as given above, of the following provision:

10th. Occupants, locatees or purchasers of public lands shall not unless under settlers' licenses or for clearing, fencing or building purposes on the said land, be permitted to cut any description of timber or logs thereon, or to dispose of it to others until they have gone into the actual *bona fide* occupation of the said land, have built a habitable house thereon 16x20 feet at least, have resided thereon actually continuously for at least six months, and cleared and put under cultivation two acres at least of the said land. Persons contravening this regulation shall be subject to the penalties established by law for cutting timber on the Public Lands without authority. This regulation shall not be construed as in any way affecting the regulations respecting pine and cedar trees of the 27th day of May, 1869, and the 3rd April, 1880.

Timber Marks.

A measure of some importance to the lumber trade was passed by the Dominion Parliament during the session 1870. "An Act Respecting the Marking of Timber" provided that every person engaged in the business of lumbering or getting out timber and floating and rafting the same on the inland waters within the Province of Ontario or Quebec, should be subject to a penalty of fifty dollars for failure or neglect to select a mark or marks to be put in a conspicuous place on each log or piece of timber floated or rafted. A timber mark register was to be kept in the office of the Minister of Agriculture, where all marks were to be registered, giving the party registering the same the exclusive right to use such mark. Provision was made against the duplication of marks, or the adoption by one lumberman of any mark bearing such a close resemblance to another previously registered as to cause confusion, and a penalty of not less than \$20 or more than \$100 was imposed for the use of any registered mark by any other person than the proprietor.

Stream Pollution.

The practice of throwing sawdust and other mill refuse into navigable streams and rivers was at this time very general among the owners of saw mills, with the frequent result of obstructing navigation by the accumulation of debris, as well as of destroying the fish in water where they formerly abounded. On February 20th, 1871, Mr. Cartwright introduced a bill for the better protection of navigable streams and rivers, into the House of Commons, by which this practice was prohibited. It was referred to the Committee on Banking and Commerce, who reported the bill back to the House on the ground that they were entirely without evidence as to the necessity of such legislation and recommended the subject to the consideration of the Government with a view to enquiry by Commission or otherwise. A Commission was accordingly appointed consisting of Hon. Hamilton H. Killaly of Toronto, John Mather of Chelsea, and R. W. Shephard of Montreal. Their report strongly favoured the proposed legislation, the need of which was plainly indicated by the testimony adduced, showing the serious impediments to navigation which in many instances had resulted from throwing saw mill refuse into the water. The measure when introduced in 1873 became law. Its principal clause provides that—

"From and after the passing of this Act no owner nor tenant of any saw mill nor any workman therein, nor other person or persons, whosoever, shall throw or cause to be thrown, or suffer or permit to be thrown, any sawdust, edgings, slabs, bark or rubbish of any description whatsoever, into any navigable stream or river, either above or below the point at which such stream or river ceases to be navigable." A fine of not less than twenty dollars was imposed for the first offence, the penalty for subsequent infractions of the law being not less than fifty dollars. It was made the duty of the fishery officers to examine and report on the condition of navigable streams and rivers from time to time and to prosecute offenders. The Governor-in-Council was given power to exempt any stream or river or any part thereof from the operation of the Act, on its being shown to his satisfaction that the public interest would not be injuriously affected thereby.

Export Duty on Saw Logs.

The question of the maintenance of an export duty on saw logs came up in the Dominion Parliament again during the Session of 1874. On the 9th of April a Select Committee composed of Messrs. Charlton, Currier, McDougall (Renfrew), McCallum, Scriver, Colby, and Stuart were appointed to enquire into and report on the working of the Act Cap. 44 of 31 Vic., so far as it relates to imposing an Export duty upon saw logs, shingle bolts, and stave bolts. The report of the Committee, presented on the 30th of April, was as follows:—

"That the Export Duty on saw logs, shingle bolts and stave bolts, imposed under Schedule F. of the Tariff Act of 1868, Cap. 44 of 31 Vic., is a tax upon settlers and owners of timber, who are prevented by its operation from obtaining the full advantage afforded by the best markets.

"That the Export Duty while reducing the market value of logs and bolts for the benefit of mill owners does not promote the manufacture of lumber, shingles, and staves at the principal Lake Erie Ports, and at many other points in Canada.

"That a large proportion of the export of pine and oak logs is long timber, entering into the same class of consumption as does the square oak export of Canada.

"That exporters of round pine and oak from Lake Erie ports compete in American markets with Michigan timber dealers, to whom the Canadian export duty afford a considerable protection.

"That since the imposition of the Export Duty, a large amount of capital embarked in the round timber trade has been withdrawn from Canada and invested in Michigan.

Hard on Settlers.

"That the saw mill interest of Canada has in the opinion of your Committee, been slightly benefited by the Export Duty; and that whatever benefit the Export Duty has conferred upon the saw mill interest, has been given at the direct expense of the settlers and owners of timber.

"That the Export Duty reduced to an ad valorem rate, would be on the average 40 per cent. on stave bolts; 30 per cent. on oak logs; 20 per cent. on pine logs; 25 per cent. on spruce logs, and 25 per cent. on shingle bolts.

"That the Export Duty is an extreme protective measure and partially at least inoperative as such, and that the burdens imposed by it are unequally distributed, falling as they do entirely upon settlers and other owners of timber."

An Act abolishing the Export Duty on stave bolts and oak logs was passed in 1875.

Export Duty Increased.

In 1886 the remaining export duties were altered, that on shingle bolts being fixed at \$1.50 per cord, spruce logs \$1 per thousand feet, and pine logs \$2 per thousand feet. The Governor-in-Council was authorized to increase the export duty on pine logs to \$3 per thousand feet. By an Act passed in 1888 the Governor-General was empowered either to reduce or remove these duties whenever it should appear desirable in the public interest to do so. By an Order-in-Council of the 13th November in the same year the export duty on saw logs was increased from \$2 to \$3 per thousand feet; but on July 5th, 1889, the former rate was restored, in view of a probable understanding being reached with the United States for more favorable duties upon our manufactured lumber. The negotiations progressed satisfactorily, and in 1890 Sir John Macdonald promised the removal of the export duty on pine and spruce logs in the event of the United States Congress reducing the import duty on sawn lumber to \$1 per thousand

Abolished in 1890.

feet. This reduction took place, and on October 11th, 1890, the Canadian Government by Order-in-Council abolished the export duty.

With the accession to power in the United States of the Democratic Party the duty of \$1 per M. on sawn lumber was removed, and free trade in lumber and logs followed between Canada and the States. General business was good on both sides of the line, and in 1892 the timber trade was very prosperous.

Trade Depression.

The prosperous condition of the market which obtained in 1892 did not long continue. The prolonged period of financial stringency and business depression which set in during the following year in the United States, followed by the imposition of a duty of \$2 per thousand upon sawn lumber, largely destroyed the market for the coarser grades of lumber. Meanwhile large quantities of saw logs were being cut for exportation into the United States in order to furnish American mill owners with the raw material to enable them to meet the demand formerly supplied by Canadian shipments of the manufactured article.

Defensive measures were demanded by the lumber trade, and the Dominion Government was urged to reimpose the export duty of \$2.00 per M. on saw logs, abolished in 1890. As the United States tariff legislation imposing the import duty of \$2.00 per M. on sawn lumber also provided that this duty should be increased by the amount of export duty on logs that might be imposed by any other country, the Dominion Government was naturally reluctant to act. Western Ontario lumbermen who were mainly affected by the competition of their own logs sawn in Michigan, applied for relief to the Provincial Government, and in the session of 1898, at the instance of the Government, regulations requiring that all logs cut on Crown Lands should be manufactured in the Province, were approved by the Legislature. Michigan holders of Ontario timber limits, whose mills had been supplied with logs from them, claimed that this legislation constituted a breach of contract on the part of the Crown, that by the payment

of the bonus at the time they acquired the limits they were entitled to cut the pine timber thereon and dispose of it as they saw fit, and that this action by lessening the value of the timber to them was to that extent confiscation.

The authors of the legislation held that when the holders acquired these limits they obtained a license to cut for one year only; that they understood when acquiring them that if they obtained a renewal of their license the following year it must be subject to such regulations as the Government saw fit in the interest of the Province to impose; that the new regulations applied to Canadian holders of limits as well, and was desirable in the interests of the Province.

The American limit holders also claimed that this regulation was *ultra vires* of the Provincial Legislature, being an interference with the "Trade and Commerce" which lay within the jurisdiction of the Dominion Government. The legislation was, however, allowed by the Dominion Parliament, and in 1899, by consent of the Attorney General of the Province, the case of the validity of the regulation was brought before the courts. Justice Steele, before whom the case was heard, gave judgment in favor of the Province, and at this writing no appeal has been taken from this decision.

TIMBER SALES.

In 1871 the area of timber land under license in Ontario was considerably increased, and the revenue largely augmented by the sale of extensive

Extensive Sales.

timber limits in the districts of Muskoka and Parry Sound. These areas had been thrown open for settlement by the "Free Grants and Homestead Act of 1868," but by a report dated September 26th, 1871, the Commissioner of Crown Lands recommended that the lands remaining unsold and unlocated should be offered for sale as timber limits in berths not to exceed twenty square miles in area, under the following conditions. Each limit at its estimated area to be adjudged to the party bidding the highest amount of bonus. The bonus and first season's ground rent at the rate of \$2 per square mile to be paid immediately after the limit is adjudged. License to issue to the successful competitor within one month from the day of sale. All red and white pine timber or saw logs cut upon the said limits to be subject to the following special rate of timber dues. White and red pine timber, per cubic foot, $2\frac{1}{2}$ c.; white and red pine saw logs, per standard of 200 feet board measure, 30c. So much of the Crown Timber Regulations as conflicted with this order to be suspended for the purposes of this sale, but in all other respects to apply to the licenses to be issued. The Commissioner also recommended that the Department recognize the right of all purchasers or locatees of Free Grant Lands to sell or dispose of pine trees on their lots subject to the payment of the above duties.

Diameter Limit for Cutting.

These recommendations were approved of on the 4th of October, 1871. By a subsequent Order-in-Council on 22nd of November an important additional condition was imposed in connection with these sales, the purchasers being prohibited from cutting any trees of less size than thirteen inches in diameter at the butt, all pine timber under that size being reserved. At the same time the duty of 30 cents per standard saw log on lands located to settlers, being considered too high was reduced to 15 cents.

The timber berths in the Muskoka and Parry Sound districts disposed of under these conditions on November 23rd, 1871, comprising an area of 487 miles, realized \$117,672 in bonuses.

Sale of 1872.—Local Saw Mills.

The year 1872 is notable for a still more extensive sale of timber limits on the north shore of Lake Huron held on the 15th and 16th of October, when 5,301 square miles were disposed of, realizing as bonus \$592,601, and ground rent \$10,064, making a total of \$602,665. More than three-fifths of this area had previously been under license, but with the exception of 300 square miles, the licenses granted in this locality in former years had been allowed to lapse. Some little difficulty arose in connection with these sales by reason of the claims of saw mill owners who had been operating in a small way on the North Shore for some twenty years previous, manufacturing lumber mainly for local use. At first these mills were largely supplied with timber taken from Crown Lands without license or the payment of dues unless in exceptional cases. Afterwards applications were made for licenses by the owners, and in some instances small spaces of territory were assigned to the applicants, who, however, made considerably more extensive demands than appeared reasonable to the department. The settlers in some districts complained that the supply of lumber for local consumption was insufficient. To meet the case the following Order-in-Council was adopted on the 19th of April, 1872.

"The Committee of Council have had under consideration the Report of the Commissioner of Crown Lands, dated April 9th, 1872, wherein the Commissioner states that, with the view of promoting settlement on lands at present remote from the centres of traffic and to contribute to the comfort and well-being of those already settled in such localities, a supply of sawn lumber for the erection of dwellings, barns, etc., is an absolute necessity, and the means at the disposal of the Department of furnishing a supply of timber for saw mills to meet such necessity being limited, he considers it expedient, in order to supplement such means, that recourse for a supply of timber should be had to lands held under license. The Committee advise that the Commissioner be authorized to withdraw, at any time, from any timber license hereafter issued or renewed, any lot or lots or portion of land, he may deem necessary for the purpose of enabling him to furnish lumber for the supply of saw mills, erected or to be erected, for the manufacture of sawn lumber for local consumption."

In order to obviate any misunderstanding and prevent any possible abuse of this privilege by the export of lumber taken from lands set apart for the supply of lumber for the settlers, and further as a reasonable guarantee to license holders that their interests would not be necessarily interfered with, the following clause was adopted on December 17th, 1872, as an addendum to the previous Order-in-Council:

"The timber from lands set apart for the supply of saw mills manufacturing lumber for local consumption, is to be cut and manufactured exclusively for such local demand and so disposed of, that any infraction of this condition, directly or indirectly may be followed in each case by cancellation of authority to cut timber or trees on the lands so set apart for the purpose above mentioned, and may be restored to the license from which the same were withdrawn."

The annual report of Hon. R. W. Scott, Commissioner of Crown Lands, for 1872, has the following explanation of the policy pursued by the Provincial Government with regard to the Crown domain: "The policy of

placing under license the area disposed of at the late sale has been questioned on the ground that it was virtually locking up the country from settlement, and handing over absolutely to licentiates the timber which should have been retained as a permanent source of revenue to the Province; the fallacy of such objections must be apparent in the face of the following facts, viz., that the lands will be as open for sale after being covered by license as they were before the existence of such license, and that the timber which has hitherto yielded no appreciable contribution to the Provincial Treasury will now, as the result of the territory being placed under license, be a prolific source of revenue, permanent as the existence of the material from which it is derived.

An Aid to Settlement.

"It was fairly assumed also, that placing the lands under license was the only means of settling the country, and it is gratifying to know that all the settlers in the Algoma district approve of the sale, and believe it was the one thing necessary to stimulate the growth and development of that neglected part of Ontario."

The Commissioner then referred to previous efforts to settle the territory which had resulted in failure. Seven townships had been laid out in the most desirable sections upwards of ten years before, and land offered to settlers at 20c. per acre, but the average annual sales during that period had only amounted to 498 acres, and the greater part of the land sold was subsequently abandoned as unfit for cultivation. It therefore became evident that the only means of opening up the country for settlement was through lumbering enterprise. The report continued:—

"In view of the exceptional condition of the country, the timber being open to wholesale plunder along an uninhabited frontier, where every facility exists for easy transport of logs by towage to the shores of the United States, to prevent which would entail on the Department a large amount of outlay; the recurrent destruction of the valuable staple by fires, the facts as given with respect to the sale of lands, showing clearly that in the absence of some auxiliary inducement, it would be vain to expect them to be taken up for actual settlement, the adoption of such steps as would meet the exigency in its several phases became absolutely necessary.

"The only action open to the Department under the circumstances was to offer the Timber Berths for sale at public competition by which the territory would be placed in such a position that its resources could be properly and advantageously controlled, and hundreds of millions of feet of valuable lumber saved to the Province, which would otherwise be destroyed by fire or plundered and carried away."

Lake Superior Lands.

In order to supply the local demand for lumber on the North Shore of Lake Superior, owners of patented lands and purchasers of lands in that territory, were granted by Order-in-Council passed June 29th, 1872, the right to acquire the pine trees on their lands on making the additional payment of 50c. per acre. It was provided that in case they declined to purchase the pine trees upon their lands the Crown Lands Department might dispose of them at the same rate to other persons, or in case of their being more than one applicant, to the one paying the highest additional sum per acre for the pine.

SETTLER'S RIGHTS TO PINE TIMBER.

Lumbering and Settlement.—The Land Act of 1841..

One inevitable consequence of the failure to discriminate between agricultural and non-cultivable lands in the past, has been the frequent clashing of interests between the settler and the lumberman. The former having taken up land in a district covered by timber license found that after he had acquired full ownership in all other respects, the pine growing on his lot could be cut and carried away by the lumberman at his pleasure. The latter on his part complained that the value of his limit was continually being impaired by the inroads of settlers, who took advantage of the conditions of the land-granting system to obtain title of occupancy to lots with the object of clearing the land of its timber. In the earlier days of settlement the difficulties arising from this source were not serious, the incoming agricultural population naturally sought the most fertile and accessible areas, the operations of the lumbermen being largely confined to a region too distant and sterile to attract those in search of homesteads. Under the system then prevailing the lumberman explored the country until he found a heavily timbered area and then applied for a license, which he usually got on terms which involved a very trifling return to the public in proportion to the value of the privileges granted. When the Government began to realize the worth of the timber resources of this country, and to endeavor to secure for the public treasury a larger share of their value, they adopted a policy of as far as possible disposing of the pine before throwing the land open for settlement, and in laying out timber limits, included large tracts of agricultural land with the non-cultivable districts which formed the principal pine-producing area. Moreover, the operations of the lumbermen, continued for a series of years, tended of themselves to attract settlement in and around the pine woods. The men employed in the lumber camps often squatted in the neighborhood, made small clearings and raised a little produce during the summer, looking to employment in the shanties in the winter time as their main source of subsistence. Thus small settlements grew up, and as population throughout the Province increased and it became necessary for those seeking homes to look farther afield, the demands of those engaged in the lumber trade and the opening up of the country through their operations attracted many to the debateable ground. Some who took up land in the lumbering region no doubt had an eye to the value of the timber on their locations as affording the means of eking out a livelihood during their first years of occupancy, while in other cases the conditions of settlement were abused by those who merely wished to acquire a colorable title in order to strip the land of its timber without intending to establish themselves permanently as settlers. A survey of the legislation respecting the disposal of public land shows that it was many years after the union of the Provinces before the difficulties arising out of the conflicting interests of lumbermen and settlers became sufficiently pronounced to render it necessary to define their respective rights by legal enactment. "An Act for the Disposal of Public Lands" passed immediately after the union in 1841 prohibited the abuses which had prevailed to so grave an extent before the era of Responsible Government, in the indiscriminate granting of large tracts of land under various pretexts, by limiting free grants of land to fifty acres to be made only to actual settlers. Neither in this Act nor in an amending enactment passed in 1849 to remove doubts as to whether under the provisions of the former measure the Crown had power to release escheats and otherwise modify the law is there any mention

made of the settler's rights in the timber growing upon his land. In 1853 further legislation extended the area of lots under the free grant system to 100 acres, and among the provisions of the Act was one authorizing the Commissioner of Crown Lands to issue licenses of occupation to those intending to purchase and settle on public lands, giving them the right to occupy and maintain possession against trespassers as fully as they could do under patent. There is no reference in this Act to the right to cut timber, or any definition of the respective interests of the settler and lumberman. "An Act respecting the Sale and Management of Public Lands," adopted in 1860, however, contained the following substitute clause in regard to licenses of occupation:—

License of Occupation.

"The Commissioner of Crown Lands may issue under his hand and seal, to any person who has purchased or may purchase, or is permitted to occupy or who has been entrusted with the care or protection of any public land or who has received or been located on any public land as a free grant, an instrument in the form of a License of Occupation, and such person or the assignee, by an instrument registered under this or any former Act providing for registration in such cases, may take possession of and occupy the land therein comprised, subject to the conditions of such license and may thereunder, unless the same shall have been revoked or cancelled, maintain suits in law or equity against any wrongdoer or trespasser, as effectually as he could do under a patent from the Crown; and such License of Occupation shall be *prima facie* evidence for the purpose of possession by such person, or the assignee under an instrument registered as aforesaid in any such suit; but the same shall have no force against a License to cut timber existing at the time of the granting thereof."

This is the first enactment bearing on the respective claims of the license holder and the settler, and clearly determined to question so far at all events as the position of the latter was concerned prior to the issue of his patent. It was followed up by an Order-in-Council dated May 27, 1869, which defined the rights of the parties somewhat more closely as follows:—

Settler's Right to Cut Timber.

"All Pine Trees growing on or being upon any Public Land hereafter to be sold, and which at the time of such sale, or previously, was included in any Timber License, shall be considered as reserved from such sale, and such land shall be subject to any Timber License, covering or including such land, in force at the time of sale; and such trees may be cut and removed from such land, under the authority of any such Timber License, while lawfully in force, but the purchaser at such sale or those claiming under him or her, may cut and use such trees as may be necessary for the purpose of building, fencing, and fuel on the land so purchased, and may also cut and dispose of all trees required to be removed in actually clearing said land for cultivation, but no pine trees except for the necessary building fencing and fuel as aforesaid shall be cut beyond the limit of such actual clearing before the issuing of the patent for such land, and all pine trees so cut and disposed of (except for the necessary building, fencing and fuel as aforesaid) shall be subject to the payment of the same dues as are at the time payable by the holders of licenses to cut timber or saw logs.

"All trees remaining on the land at the time the Patent issues shall pass to the Patentee.

"Provided however, that this order shall not apply to any land to be sold as mining land under "The General Mining Act of 1869," nor to land to be sold to any Free Grant Locatee under the Regulation or Order-in-Council bearing date this day."

Free Grants Act of 1868.

The "Free Grants and Homesteads Act of 1868," providing for the setting apart of land for Free Grants to actual settlers expressly reserved to the Crown all pine trees upon such locations, with the customary exception of timber for building, fencing, and fuel and those trees necessarily removed in clearing the land. All other pine trees cut before the issue of the patent were to be subject to timber dues. Trees remaining on the land at the time the patent issued were to pass to the patentee. An Order-in-Council issued May 27th, 1869, provided that all pine trees on land located or sold under the Free Grants and Homesteads Act of 1868 should be subject to any timber license in force at the time of location or sale, or granted within five years subsequently and might at any time before the issue of the patent be cut and removed.

Licenses covering Free Grants.

Doubts arose as to the construction of the Free Grants and Homesteads Act of 1868, which rendered uncertain the right of the Commissioner of Crown Lands to issue licenses to cut timber upon lands located or sold to Free Grant Settlers and some litigation resulted. This necessitated the passage of an explanatory act in 1877, by which the authority of the Commissioner to grant licenses including such lots was clearly laid down, and existing licenses covering Free Grant territory continued subject to any conditions and regulations specially applicable to such territory.

Further amendments of the Free Grants and Homesteads Act were made in 1880 by a provision under which the patents for land located under the Act should contain a reservation of all pine trees on the land, and allowing the license-holder within whose limits the lot was included to enter the uncleared portion of the land, and cut and remove trees at any time during

Lumbermen's Dues to Settlers.

the continuance of his license. The patentee of land located or sold under the Act, was to be paid on all pine trees cut on his land, on which dues had been collected by the Crown, the sum of 25 cents per thousand feet board measure, for saw logs, and \$3 on each thousand cubic feet of square or waney timber. In 1890 the rate of payment was increased to 33 cents per thousand feet for saw logs and \$4 per thousand for square or waney timber.

Further Restrictions in 1899.

By an Order-in-Council dated the 18th day of May, 1899, it was provided that occupants, locatees, or purchasers of public lands, should not, unless under settlers' licenses or for clearing, fencing or building purposes be permitted to cut or dispose of timber until they had gone into actual *bona fide* occupation of the land, built a habitable house of at least 16 by 20 feet, continuously resided there for six months and cleared and put under cultivation at least two acres.

THE SQUARE TIMBER TRADE.

A resolution adopted by the Legislative Assembly on February 8th, 1878, called for returns showing the quantity of saw logs, square and waney pine timber cut on public and private lands for each of the years from 1868 to 1877 inclusive. The figures are chiefly of interest as indicating the great fluctuations of trade during this period, resulting mainly from the unsatisfactory condition of the British market. The totals for the years specified in feet, board measure, are as follows:

1868.....	177,390,000	1873.....	589,178,742
1869.....	375,620,200	1874.....	406,185,320
1870.....	300,900,850	1875.....	396,681,522
1871.....	358,096,400	1876.....	294,729,327
1872.....	669,569,542	1877.....	270,260,979

Great Waste.

The report of Hon. T. B. Pardee, Commissioner of Crown Lands for the year 1879, dealt at some length with the waste of valuable material involved in the manufacture of square and waney pine timber for shipment to England. Estimating that in squaring timber one-fourth of the wood was destroyed, the Commissioner calculated on the basis of the returns showing the production of square pine for the ten years 1868-1877, that a direct loss to the Province of \$3,577,500 for this period had been sustained or an annual loss of \$357,750. In addition, the loss owing to the destruction of timber by fires, which might have been confined to a limited area, and possibly extinguished before great damage had been done, had they not been fed by the debris of trees left to rot and dry, was incalculable. "It is time," continued the report, "that the Canadian lumberman engaged in the square pine business should open his eyes to the alarming waste of a material, the value of which is increasing every year, (that in fact he is stripping his limits and disposing of his timber frequently at a loss, or at best during several years past, at a rate which seldom pays more than the cost of cutting down, squaring, drawing and taking to market, while at the same time he leaves in the woods as useless one-fourth of each tree he levels to the ground, one-half of the timber so left being the most valuable part of the tree); and see the necessity of turning his attention to saw milling operations as a more economical mode of manufacturing his timber, by which he would not only benefit himself by turning to profitable account what is now so wantonly wasted, but the Province generally by increasing the field of labor for its people, while the Provincial Treasury would derive additional revenue from the material saved and utilized. * * *

"It is to be hoped that those who hold timber limits and have confined their operations to the manufacture of square pine, will see the propriety and necessity of speedily reducing the production to the smallest possible extent, with the object of wholly withdrawing from the trade at an early day."

RIVERS AND STREAMS.

The use of all streams and rivers upon the waters of which timber could be floated to its destination, has from the outset of the timber trade been a most important consideration to the lumberman. Debarred of this means of getting out his annual cut, the possession of limits at a distance from the main water highways would be of little value to him. The right of the

licensee to use all such watercourses contiguous to his property, whether originally adapted for floating timber or capable of being made so by the construction of slides, the removal of obstacles to navigation or other improvements, is in fact essential to the utilization of the timber growing on the higher and more remote areas, and its refusal would render lumbering over a large proportion of the public Domain an unprofitable pursuit.

Caldwell vs. McLaren.

In the year 1881 a question of vital interest to the lumber trade was raised in connection with the right of one lumberman to use floatable streams which had been improved by another, who regarded them as his private property. Peter McLaren, who had made improvements on two streams, tributaries of the Mississippi river in Lanark county, refused to permit W. C. Caldwell, another lumberman, to run his logs over the improvements. The matter came before the courts and streams were held to be private property. As no fewer than 234 streams in the Province were in the same category, this decision, if allowed to stand, would have had a paralyzing effect upon the lumber trade, as the berths upon the upper waters of these streams could at any time be cut off from access to navigable waters at the will of the riparian owners below them. In the public interest, the Ontario Legislature, at the session of 1881, passed an Act settling the question, by giving every one the right to float logs and timber down rivers, streams and creeks, but providing for the payment of reasonable tolls for the use of improvements. Before giving the text of this notable and fiercely contested measure, which for some years constituted one of the principal issues in Ontario polities, it may be well to glance at previous legislation on the same subject.

The earliest Act dealing with the floating of lumber on streams is "an act to provide for the construction of aprons to mill dams over certain streams in this Province," passed in 1828. After reciting that "whereas it is expedient and found necessary to afford facility to the inhabitants of this Province engaged in the lumber trade, in conveying their rafts to market as well as for the ascent of fish in various streams now obstructed by mill dams, for the accommodation of those residing at a distance from the mouths thereof," it enacts as follows:

"That from and after the first day of May in the year of our Lord, one thousand eight hundred and twenty-nine, every owner or occupier or owners or occupiers of any mill dam which is, or may be legally erected, or where timber is usually brought down the stream on which such mill dam is erected, or where salmon or pickerel abound therein in this Province, who shall neglect to construct or erect a good and sufficient apron to his or their dam as hereinafter set forth, shall for such offence, yearly and every year, forfeit and pay the sum of twenty-five pounds of current money of this Province, one moiety thereof to His Majesty, his heirs and successors for the public uses of the said Province, and the support of the Government thereof, and the other moiety of the said sum to any person who shall sue for the same in any of His Majesty's courts of record within this Province.

Improvements to Dams.

"And be it further enacted by the authority aforesaid—that every such apron shall be erected and constructed in the following manner, that is to say: such apron shall not be less than eighteen feet wide, by an inclined plane of twenty-four feet eight inches, to a perpendicular of six feet, and

so in proportion to the height, where the width of the stream will admit of it, and where such stream or dam is less than fifteen feet wide, the whole dam shall be aproned in a like manner, with the same inclined plane."

This Act was amended by an Act of the Canadian Parliament in 1849. The most important section of this later measure is the following, defining the right of the public to use streams for floating timber:

Floatable Streams Common to all.

"And be it enacted, that it shall be lawful for all persons to float saw logs and other Timber, Rafts and Craft down all streams in Upper Canada, during the Spring, Summer and Autumn freshets, and that no person shall by felling trees or placing any other obstruction in or across such stream prevent the passage thereof. Provided always that no person using such stream, in manner and for the purposes aforesaid, shall alter, injure or destroy, any Dam or other useful erection in or upon the bed of or across any such stream, or to do any unnecessary damage thereto or on the Banks of such Stream. Provided there shall be a convenient Apron, Slides, Gate, Lock, or opening in any such Dam or other structure, made for the passage of all Saw logs and other Timber, Rafts and Crafts authorized to be floated down such streams as aforesaid."

The Act of 1849 was sufficiently clear as to the right of the public to use "floatable" streams, but left untouched the point as to whether streams which required improvements to make them available for floating timber could be used for that purpose by anyone other than the owner, and if so, on what terms. The "Act for Protecting the Public Interest in Rivers, Streams and Creeks," first adopted in 1881 as the outcome of the McLaren vs. Caldwell controversy, reads as follows:

The Streams Bill of 1881.

1. So far as the Legislature of Ontario has authority, all persons shall, subject to the provisions of this Act contained, have, and are hereby declared always to have had, during the spring, summer and autumn freshets, the right to and may float and transmit saw logs and all other timber of every kind, and all rafts and crafts, down all rivers, creeks and streams in respect of which the Legislature of Ontario has authority to give this power and in case it may be necessary to remove any obstruction from such river, creek or stream, or construct any apron, dam, slide, gate-lock, boom, or other work therein or thereon, necessary to facilitate the floating and transmitting such saw logs and other timber, rafts or crafts, then it shall be lawful for the person requiring so to float and transmit such saw logs and other timber, rafts and crafts, and it is hereby declared always to have been lawful, to remove such obstruction, and to construct such apron, dam, slide, gate-lock, boom or other work necessary for the purposes aforesaid, doing no unnecessary damage to the said river, creek or stream, or to the banks thereof.

2. In case any person shall construct in or upon such river, creek, or stream, any apron, dam, slide, gate-lock, boom or other work, necessary to facilitate the floating or transmission of saw logs or other timber, rafts, or crafts, down any such river, creek or stream, which was not navigable or floatable before such improvements were made, or shall blast rocks, or remove shoals or other impediments, or otherwise improve the floatability of such river, creek or stream, such person shall not have the exclusive right to the use of such river, creek or stream, or to such constructions and

improvements; but all persons shall have, during the spring, summer and autumn freshets, the right to float and transmit saw logs and other timber, rafts or crafts, down all such rivers, creeks or streams, and through and over such constructions and improvements, doing no unnecessary damage to the said constructions and improvements, or to the banks of the said rivers, creeks or streams, subject to the payment to the person who has made such constructions and improvements, of reasonable tolls.

3. The foregoing sections, and all the rights therein given, and all the provisions therein made and contained, shall extend and apply to all rivers, creeks and streams, mentioned in the first section of this Act, and to all constructions and improvement made therein or thereon, whether the bed of such river, creek or stream, or the land through which the same runs, has been granted by the Crown or not, and if granted by the Crown, shall be binding upon such grantees, their heirs, executors, administrators and assigns.

4. The Lieutenant-Governor in Council may fix the amounts which any person entitled to tolls under this Act shall be at liberty to charge on the saw logs and different kinds of timber, rafts or crafts, and may from time to time vary the same; and the Lieutenant-Governor in Council, in fixing such tolls, shall have regard to and take into consideration the original cost of such constructions and improvements, the amount required to maintain the same, and to cover interest upon the original cost, as well as such other matters as under all circumstances may, to the Lieutenant-Governor in Council, seem just and equitable.

5. The foregoing provisions of this Act shall apply to all such constructions and improvements as may hitherto have been made, as well as to such as may be in course of construction, or shall hereafter be constructed.

6. Every person entitled to tolls under this Act shall have a lien upon the saw logs or other timber passing through or over such constructions or improvements, for the amount of such tolls, such lien to rank next after the lien (if any) which the Crown has for dues in respect to such logs or timber, and if such tolls are not paid, any Justice of the Peace having jurisdiction within or adjoining the locality in which such constructions or improvements are, shall, upon the oath of the owner of such constructions or improvements, or upon the oath of his agent, that the just tolls have not been paid, issue a warrant for the seizure of such logs or timber, or so much thereof as will be sufficient to satisfy the tolls, which warrant shall be directed to any constable, or any person sworn in as a special constable for that purpose, at the discretion of the magistrate, and shall authorize the person to whom it is directed, if the tolls are not paid within fourteen days from the date thereof, to sell, subject to the lien of the Crown (if any) for dues, the said logs or timber, and out of the proceeds to pay such tolls, together with the costs of the warrant and sale, rendering the surplus on demand to the owner: Provided always that the authority to issue such warrant by such Justice of the Peace shall not exist after the expiration of one month from the time of passage of such logs or timber through or over any of such constructions or improvements.

7. Nothing in this Act contained shall be construed as interfering with the powers or rights of any company formed under the Act respecting Joint Stock Companies, for the construction of works to facilitate the transmission of timber down rivers and streams, being chapter one hundred and fifty-three of the Revised Statutes of Ontario, or with mill-dams, or the right to erect and maintain mill dams on streams; and the law respecting mills and mill-dams being chapter one hundred and thirteen of the Revised

Statutes of Ontario, and any other law conferring rights in mill-dams shall remain the same as if this Act had not been passed.

8. All persons driving saw logs, or other timber rafts, or crafts, down any such river, creek, or stream, shall have the right to go along the banks of any such river, creek, or stream, and to assist the passage of the timber over the same by all means usual among lumbermen, doing no unnecessary damage to the banks of the said river, creek or stream.

9. Every person entitled to tolls under this Act may make rules and regulations for the purpose of regulating the safe and orderly transmission of saw-logs, timber, rafts or crafts over or through such constructions or improvements, but no such rules or regulations shall have any force or effect until approved of by the Lieutenant-Governor in Council, and the Lieutenant-Governor in Council may revoke and cancel such rules and regulations so made and approved, and from time to time approve of new rules and regulations, which the person so entitled to tolls, as aforesaid, shall have the power to make.

10. If any suit is now pending the result of which will be changed by the passage of this Act, the court or any judge of such courts, having authority over such suit, or over the costs, may order the costs of the suit, or any part thereof, to be paid by the party who would have been required to pay such costs if this Act had not been passed.

Act Disallowed.

The Act was disallowed by the Dominion Government which had taken Mr. McLaren's side in the controversy. The Ontario Legislature re-enacted the measure in 1882 and 1883, on each of which occasions the Dominion Government repeated its action. Simultaneously with the political struggle a legal conflict between the private contestants was going on in the Courts. When it reached the Privy Council the question was finally settled in favor of Caldwell. This legal victory decided the fate of the Act. When re-enacted for the fourth time in the year 1884 the Dominion Government yielded and allowed it to become law.

Slides and Dams.

Extensive provincial works have from time to time been undertaken in the construction of slides and the removal of obstacles to the floating of timber. The amount of public money expended on slides, etc., on the Ottawa River and its tributary streams up to the 1st of January, 1845, was £24,682. An Act passed in that year made provision for levying tolls in connection with Public Works of this character, in accordance with which a schedule of slidge rates as authorized by the Governor in Council, was published in the Canada Gazette of May 3rd, 1845. The receipts for slidge dues on the Ottawa slides for 1846 were £946. The revenue from this source steadily increased with the growth of the lumber trade, until in 1866 the total receipts for slidge dues amounted to \$63,483. Since Confederation these dues have formed part of the revenue of the Dominion.

Timber Slide Companies.

The amount expended by private enterprise on improvements to facilitate the descent of timber down rivers and streams has considerably exceeded the public expenditure for that purpose. According to a return made on May 28th, 1853, by A. J. Russell, Surveyor of Crown Timber Licenses at Bytown, to an address of the Legislative Assembly, the

approximate outlay by private individuals for this purpose on the Ottawa and its tributaries amounted to £151,847. In the same year an act was passed to authorize the formation in Upper Canada of Joint Stock Companies "for the purpose of acquiring or constructing and maintaining any dam or dams, slide or slides, pier or piers, boom or booms, or other work or works necessary to facilitate the transmission of timber down any river or stream in Upper Canada, and for the purpose of blasting rocks, or dredging or removing shoals, or other impediments or otherwise of improving the navigation of such streams for the said purpose."

They were authorized to levy tolls upon timber passing downwards on a basis of 10 per cent. on the amount invested and the cost of maintaining and superintending the works.

In 1855 the Act was extended to Lower Canada and some amendments made, the proportionate rate on saw logs being reduced to one-twelfth in place of one-eighth of the amount charged on sticks of pine timber.

The powers of Timber Slide Companies have been considerably extended by subsequent legislation, and the regulations governing their proceedings assimilated to those of Joint Stock Companies generally. The Timber Slide Companies Act of 1881 provides that Companies incorporated under the Ontario Joint Stock Companies Letters Patent Act may be granted by the Lieutenant-Governor-in-Council the powers authorized by the Revised Statutes respecting Joint Stock Companies for the construction of works to facilitate the transmission of Timber down Rivers and Streams. The rate of dividend may be fixed in the letters patent at not more than 15 per cent., and in such case the Commissioner of Public Works in considering the tolls to be allowed, shall have regard to such rate, but no such rate shall be so fixed for a longer period than 10 years. The existence of any company may be limited to a fixed term of years by the letters patent and upon the expiration of this period all the dams, slides, piers, booms and other works constructed by the Company become the property of the Crown without compensation to the Company or the shareholders.

X The driving of saw logs and the confusion and trouble arising from jams of logs in the water causing delay to the floating operations of other lumbermen and the mixing of logs belonging to different proprietors, was a frequent source of disputes and disagreements among lumbermen using the same stream. In 1887 the following Act was adopted by the Legislature to regulate the driving of saw logs and define the respective rights and liabilities of the parties concerned.

ACT TO REGULATE LOG DRIVING.

(1) The following words wherever used in this Act have the following meaning, viz. :—

"Logs" mean and include saw logs timber, posts, ties, cordwood, and other things being parts of trees.

"Water" means and includes lakes, ponds, rivers, creeks and streams.

(2) Any person putting, or causing to be put, into any water in this Province, logs, for the purpose of floating the same in, upon or down such water, shall make adequate provisions and put on a sufficient force of men to break, and shall make all reasonable endeavours to break jams of such logs and clear the same from the banks and shores of such water with reasonable despatch, and run and drive the same so as not to unnecessarily delay or hinder the removal, floating, running or driving of other logs, or unnecessarily obstruct the floating or navigation of such water.

3. In case of the neglect of any person to comply with the provisions of the preceding section, it shall be lawful for any other person or persons desiring to float, run or drive logs in, upon or down such water, and whose logs would be thereby obstructed, to cause such jams to be broken and such logs to be cleared from the banks and shores of such water, and to be floated, run and driven in, upon and down such water.

4. The person or persons causing such jams to be broken or such logs to be cleared, floated, run or driven, pursuant to the last preceding section, shall do the same with reasonable economy and despatch, and shall take reasonable care not to leave logs on the banks or shores, and shall have a lien upon the logs in the jam or so cleared, floated, run or driven for the reasonable charges and expenses of breaking the jams and the clearing, floating, driving, running, booming and keeping possession of such logs, and may take and keep possession of such logs or so much thereof as may be reasonably necessary to satisfy the amount of such charges and expenses, pending the decision by arbitration as hereinafter provided for. The person taking possession of logs under this section shall use all reasonable care not to take such logs beyond the place of their original destination, if known, but may securely boom and keep possession of the same at or above such place. The owner or person controlling such logs, if known, shall be forthwith notified of their whereabouts, and if satisfactory security be given for the amount of such charges and expenses, possession of the logs shall be given up.

5. When the logs of any person upon or in any water in this Province, or the banks or shores of such water, are so intermixed with logs of another person or persons, that the same cannot be conveniently separated for the purpose of being floated in, upon, or down, such water, then the several persons owning or controlling the intermixed logs, shall respectively make adequate provisions, and put on a fair proportion of the men required to break jams of such intermixed logs, and to clear the same from the banks and shores of such water with reasonable despatch, and to float, run and drive the same in, upon and down such water, and the costs and expenses thereof shall be borne by the parties in such proportions as they may agree upon, and in default of agreement as may be determined by arbitration as hereinafter provided for.

6. In case of neglect of any person to comply with the provisions of the last preceding section, it shall be lawful for any other person or persons whose logs are intermixed, to put on a sufficient number of men to supply the deficiency and break jams of such intermixed logs, and to clear the same from the banks and shores of such water, and to float, run and drive all such intermixed logs in, upon and down such water.

7. The person or persons supplying such deficiency and causing such jams to be broken, or such intermixed logs to be cleared, floated, run or driven pursuant to the last preceding section, shall do the same with reasonable economy and despatch, and shall take reasonable care not to leave logs on the banks or shores, and shall have a lien upon the logs owned or controlled by the person guilty of such neglect, for a fair proportion of the charges and expenses of breaking the jams, and the clearing, floating, running, driving, booming and keeping possession of such intermixed logs; and may take and keep possession of such logs, or so much thereof, as may be reasonably necessary to satisfy the amount of such fair proportion of charges and expenses pending the decision by arbitration as hereinafter provided for. The person taking possession of logs under this section shall use all reasonable care not to take such logs beyond the place of their original destination, if known, but may securely boom and keep possession of the same at or above such place. The owner or person controlling such logs,

if known, shall be forthwith notified of their whereabouts, and if satisfactory security be given for the amount of such proportion of charges and expenses, possession of the logs shall be given up.

8. When logs of any person, upon or in any water in this Province, or the banks or shores of such water, are intermixed with logs of another person or persons, then any of the persons whose logs are intermixed, may at any time during the drive require his logs to be separated from the other logs at some suitable and convenient place, and after such separation he shall secure the same at his own cost and expense, in such manner as to allow free passage for such other logs; provided that when any logs so intermixed reach their places of original destination, if known, the same shall be separated from the other logs and after such separation the owner shall secure the same at his own cost and expense.

9. The several persons owning or controlling the intermixed logs shall respectively make adequate provisions and put on a fair proportion of men required to make the separation, the cost and expense of such separation shall be borne by the parties in such proportions as they may agree upon, and in default of agreement, as may be determined by arbitration as hereinafter provided.

10. In case of neglect of any person to comply with the provisions of the last preceding section, it shall be lawful for any other person or persons, whose logs are intermixed, to put on a sufficient number of men to supply the deficiency, and the logs owned by or controlled by the person guilty of such neglect shall be subject to a lien in favor of the person or persons supplying the deficiency, for a fair proportion of the charges and expenses of making the separation, and for the reasonable charges and expenses of booming and keeping possession, and such person or persons may take and keep possession of such logs or so much thereof as may be reasonably necessary to satisfy the amount of such fair proportion of charges and expenses pending the decision by arbitration as hereinafter provided for. The person taking possession of logs under this section shall use all reasonable care not to take such logs beyond the place of their original destination, if known, but may securely boom and keep possession of the same at or above such place. The owner or person controlling such logs, shall be forthwith notified of their whereabouts, and, if satisfactory security be given for the amount of such proportion of charges and expenses, possession of the logs shall be given up.

11. The security referred to in sections 4, 7 and 10 may be by bond in form A in the schedule hereto, or by deposit of money, or in such other way as the parties may agree upon.

12. If it be determined by arbitration as hereinafter provided for, that any person acting under the assumed authority of this Act, has without just cause taken possession of or detained or caused to be taken possession of or detained logs of another person, or has after offer of security which the arbitrators may think should have been accepted detained such logs, or has through want of reasonable care left logs of another person on the banks or shores or has taken logs of another person beyond the place of their original destination, contrary to the provisions of sections 4, 7 or 10, then such first mentioned person shall pay to such last mentioned person such damages as the arbitrators may determine.

13. The lien given by sections 4, 7 and 10 of this Act shall be subject to the lien (if any) of any person or corporation for tolls or dues for the use of any works or improvements made use of in running or driving such logs.

14. Nothing in this Act shall affect the liens or rights of the Crown upon or in respect of any logs.

15. All claims, disputes and differences arising under this Act shall be determined by arbitration as hereinafter provided for and not by action or suit at law or in equity.

16. The person claiming that another person has not complied with the provisions of this Act, or claiming payment of any charges or expenses under this Act, or claiming a lien upon any logs, or claiming damages under section 12, shall give to such other person, notice in writing, stating the substance of the claims made, and appointing an arbitrator and calling upon such other person to appoint an arbitrator within ten days after the service of such notice; if such other person does not, within such ten days, appoint an arbitrator, the Judge of the County or District Court of the county or district, or the Stipendiary Magistrate of the provisional county or the district, as the case may be, in which the logs in connection with which the claim or part of the claim is made, or the major portion of such logs are situate at the time of the service of such notice, shall, on the application of the person giving such notice, appoint a second arbitrator; the two arbitrators so appointed shall, within ten days after the appointment of the said second arbitrator, appoint a third, if such two arbitrators do not within such ten days appoint a third, the said Judge or Stipendiary Magistrate shall, on the application of either party, appoint such third arbitrator.

17. If any arbitrator refuses to act or becomes incapable of acting, or dies, and the parties do not concur in appointing a new arbitrator, the said Judge or Stipendiary Magistrate shall, on the application of either party, appoint such new arbitrator.

18. The parties may agree that the arbitration shall be by one arbitrator instead of by three, and they may either agree upon the arbitrator or may apply to the said Judge or Stipendiary Magistrate to appoint one.

19. The person on whom a claim is made and notice of arbitration served, may at any time before the arbitration is entered upon or with leave of the arbitrators during the arbitration, give the claimant notice in writing by way of counterclaim, stating the substance of any claim arising under this Act, which such person may have against the claimant, and such counterclaim, unless barred under section 26, shall be determined in the arbitration and an award made with respect thereto.

20. The three arbitrators or the sole arbitrator, as the case may be, shall proceed with the arbitration with due despatch, and shall make their or his award in writing, under their or his hand within thirty days from the date of the appointment of such arbitrator, or the last of such three arbitrators, as the case may be. The parties may, by consent in writing, from time to time enlarge the time for making said award, or the said Judge or Stipendiary Magistrate may from time to time, either before or after the expiration of said time, enlarge the time for making said award.

21. The arbitrators or arbitrator may require the personal attendance and examination upon oath of the parties and their witnesses, and the production of all books and documents relating to the matters in question, and may determine by whom the expense of the arbitration, and the costs of the parties shall be paid, and the amount thereof; any costs or expenses payable to a person having a lien upon logs, by virtue of this Act shall be added to the amount of such lien.

22. Chapter 64 of the Revised Statutes of Ontario intituled an Act respecting the cost of Arbitrations applies to arbitrations under this Act.

23. The person or persons having a lien upon logs by virtue of this Act may sell the same in order to realize the amount of such lien, and of the costs, charges and expenses connected with the sale. The arbitrators, or arbitrator, shall determine either by their award, or by separate document,

the time, place and manner of such sale, and may, from time to time, give directions, in writing, respecting such sale, and the realization of such lien, and of the costs, charges and expenses connected therewith.

24. The award and directions in writing of any two of the three arbitrators, or of the sole arbitrator, as the case may be, shall be final and binding upon, and shall be obeyed by the parties, and shall be valid, notwithstanding any want or defect of form, or other technical objection.

25. The said Judge or Stipendiary Magistrate, as the case may be, may, on the application of either party, grant an order to compel any person or persons to attend and give evidence upon the arbitration, and to produce all books and documents relating to the matters in dispute, and obedience to such order may be enforced in the same way as obedience to any order of such Judge or Stipendiary Magistrate made in a cause or matter pending before him in court may be enforced, and the person neglecting or refusing, without lawful excuse, to obey such order shall be liable to an action by any person aggrieved by such neglect or refusal for the damages sustained by him thereby.

26. All claims arising under this Act shall be made by notice in writing under section 16, within one year after the same have arisen, otherwise they shall be barred.

27. The Lieutenant-Governor-in-Council may, from time to time by proclamation published in the Ontario Gazette, declare that any portion or portions of this Province, or any water therein shall, until further proclamation, be exempt from the operation of this Act, and thereupon the same shall be exempt accordingly.

28. Any portion or portions of the Province, or any water therein exempted by proclamation from the operation of this Act, may by proclamation published in the Ontario Gazette, be again brought within its operation until further proclamation, and so on from time to time.

29. This Act may be cited and known as The Saw Logs Driving Act, 1887.

Timber Dues Increased.

In 1887 some important changes in the tariff of timber dues were made. Standing timber had considerably increased in value since the rates then in operation were fixed, and the public interest required that the Province should receive a share in the increased value. Accordingly the rate of dues upon saw logs was advanced from 75 cents per thousand feet to \$1.00, or 33½ per cent., and upon square and waney timber from 1¼ cent per cubic foot to 2 cents. At the same time the ground rent was increased from \$2 per mile to \$3, the changes taking effect on May 1st. An extensive sale of timber limits was held in 1887, certain territory on the Muskoka and Petewawa waters having become dangerously exposed to fire owing to the advance of settlement. An area of 459 square miles was disposed of, the prices being considerably in advance of those obtained at any previous sale. A sum of \$1,313,755 was realized, being an average of \$2,859 per mile.

Licenses to Cut Pine Only. ✓

In 1892 a radical departure in the methods of disposing of timber limits was effected by restricting the rights conferred by new licenses to the cutting of red and white pine only. All licenses issued previous to this date had included all kinds of timber, but it was pretty generally understood that the lumbermen in estimating the value of limits only took

the pine into account, regarding the small quantities of hemlock, spruce and cedar which might be available as so much to the good, and attaching no value to the various hardwoods. The Department therefore,—anticipating that in future these kinds of timber, which, under the old system were practically thrown in with the pine for nothing, might prove a valuable asset, which might be retained in their hands without lessening the revenue derivable from the pine timber—put up for sale under licenses, including the pine only, timber berths situated in the Nipissing, Algoma, Thunder Bay and Rainy River districts, aggregating 633 square miles, on which the dues were increased one-fourth, viz.: on saw logs, from \$1 to 1.25 per thousand feet, board measure, and on square timber from \$20 to \$25 thousand feet cubic. The high prices received notwithstanding this increase, which exceeded by a large amount those of any previous sale, afforded sufficient evidence of the correctness of the position assumed. The total amount received was \$2,315,000, an average of \$3,657.18 per square mile. The highest figure obtained at any former sale was in 1887, when the heaviest individual bonus paid was \$6,300, and the average for all the berths disposed of at that time was \$2,859.

Algonquin Park Timber.

A portion of the territory disposed of in 1892 for which the highest price was paid was included in the boundaries of Algonquin Park. Much of the area of this reserve, which had been previously sold, was under the old conditions of license, giving the limit-holder the right to cut all kinds of timber. Being apprehensive of danger to the Park as a game and timber preserve, should the lumbermen claim their full privileges under the old form of license, the Government, under the power contained in all licenses, reserving the authority to alter the regulations, in 1898 withdrew the right to cut other woods than pine, in connection with all licenses for limits included within the area of the Park. Naturally there was some dissatisfaction among the limit owners, as the birch and spruce timber was beginning to be valuable, but as these trees were not of much marketable value at the time that the original purchase was made, the change was not felt to be a very great hardship and the regulation remains. As regards other licenses for berths sold previous to 1892 conveying the right to cut all kinds of timber, outside of Algonquin Park no change has been made as yet, and the yearly renewal for these limits is without restriction.

ONTARIO CULLERS ACT.

An Act providing for the licensing of Cullers in Ontario was adopted in 1890. Under its provisions it was made incumbent upon all persons cutting saw logs on Crown Lands to cause to be kept such records and books as required by the Crown Lands Department, to be open at all times to inspection by any Crown Timber Agent, Crown Timber ranger, or other officer of the Department, and to be attested under oath at the end of the season by the person who has made the entries therein and handed over to the officer of the Department authorized to receive the same. The Lieutenant-Governor in Council was authorized to appoint a board or boards of examiners each consisting of three persons, to test the ability and knowledge of all applicants desiring to be licensed to cull and measure saw logs cut on Crown Lands. A license may be issued to any person reported by a board

of examiners as competent to perform the duties of culler. After the passing of the act no person other than a licensed culler was to make measurement of saw logs cut on Crown Lands for the purposes of a return to the Crown Lands Department unless in cases where the services of a licensed culler were not procurable, when the Commissioner of Crown Lands was authorized to issue a temporary permit, to any trustworthy and skilled person to act as culler. The duties of cullers were thus defined by the Act:

"It shall be the duty of every culler to measure fairly and correctly to the best of his skill, knowledge and ability, all saw-logs which he may be employed to measure, making only such deductions as are necessary to allow for the rots or other defects, and to enter in his book of record, for the purpose of return to the Crown Lands Department, what he believes to be the proper contents of the log, noting also the number of saw logs rejected as worthless, commonly called culles."

"Upon all logs culled or rejected as wholly worthless he shall write the word "cull" in plain letters, but he shall not mark "cull" upon any log which is intended to be hauled to any river, lake or stream for the purpose of being driven to a mill."

All licensed cullers were required to submit their books and records of measurement for the inspection of Crown Lands agents or other officials of the Department when called upon to do so, to give all information asked for if in their power, and furnish statements as required by the Department or its agents. At the end of the season every culler was required to make a sworn statement to the Department, showing the number of pieces measured and accepted and their dimensions, and also the number of pieces rejected as worthless. The penalty for neglect or refusal to carry out the provisions of the act was cancellation of the culler's license. Improper measurements or the making of false returns were similarly punishable with an additional penalty of a fine of not less than \$20 or more than \$100. The section forbidding unlicensed persons to make measurements of saw logs for the purposes of returns to the Crown Lands Department were not applicable to the operations of any lumber company, person or firm whose gross annual output was under 250,000 feet, board measure.

The Act was brought into force on January 1st, 1891, by a proclamation by the Lieutenant-Governor in Council.

WOODMAN'S LIEN FOR WAGES.

By "The Woodman's Lien for Wages Act," enacted at the session of 1891, laborers engaged in lumbering in some districts were accorded similar rights to those extended to mechanics by existing legislation, by giving them a lien on the produce of their labor for the amount due as wages. The 3rd section of this measure provides that:

"Any person performing any labor, service or services in connection with any logs or timber in the districts of Algoma, Thunder Bay and Rainy River, shall have a lien thereon for the amount due for such labor, service or services, and the same shall be deemed a first lien or charge on such logs or timber, and shall have precedence of all other claims or liens thereon, except any lien or claim which the Crown may have upon such logs or timber for or in respect of any dues or charges, or which any timber slide company or owner of slides and booms may have thereon for or in respect of tells."

The Act provides for the issue of an attachment, on an affidavit by the claimant that he has good reason to believe that the logs or timber are

about being removed from the Province, or that the person indebted to him has absconded with intent to defraud his creditors, or that the saw logs or timber are about being cut into lumber so that they cannot be identified. In case the claim is established on a hearing before a Judge, the logs or timber so in default of payment are to be sold in the same manner as goods taken in execution for the satisfaction of the judgment. Any number of lien-holders may join in taking proceedings under the Act.

By an amendment adopted in 1894, the provisions of the Act were extended to the districts of Muskoka and Parry Sound.

FOREST PROTECTION AND REFORESTRATION.

FIRE PROTECTION.

The great danger to the forests is the ravages of fire, which becomes largely increased with the advance of settlement, the extension of the railway system and the presence during the summer season of large numbers of persons in the woods. Great inroads have been made upon our woodland resources by devastating forest fires and with the increasing value of timber, the necessity of taking some action to check this cause of destruction, early forced itself upon the attention of the Government.

In 1859, Mr. P. M. Partridge, Superintendent of Woods and Forests, appears to have referred to the question of fire protection in a general report made to the Commissioner of Crown Lands. This report, which was not printed, does not seem to have been productive of any legislation on the subject, and in 1867, the matter having become urgent because of the greater activity among mining prospectors in the Hastings and Ottawa districts, Mr. Partridge again addressed the Commissioner of Crown Lands as follows:—

MEMORANDUM FOR THE HON. THE COMMISSIONER OF CROWN LANDS.

The undersigned respectfully submits the accompanying extract from his General Report of 24th March, 1859. "On the necessity of taking some immediate action for the preservation of the Forests of the country from fires."

As it is probable that very extensive prospecting operations for gold will be carried on next summer in parts of the territories of Messrs. Way and Russell and that the numerous camps and other fires which the prospectors will undoubtedly make use of, will be additional sources of danger to our Forests, the undersigned would suggest that it is desirable that such precautionary measures be taken as the present laws admit of, and the interests of the lumber trade and the country require.

If a Gold Mining Division is organized, and an Inspector appointed, he might be clothed with such powers as the laws allow. The powers mentioned in Section 3 of the Gold Mining Act (27-28 Vict. Cap. 9,) taken in connection with sections 25 and 28 of Cap. 93, Con. Stats., Canada, might perhaps be made applicable in the premises. A cautionary clause might be inserted in all Gold Mining Licenses for the future.

(Sgd.) P. M. PARTRIDGE,
Supt. Woods and Forests.
OTTAWA, 21st February, 1867.

WOODS AND FORESTS,

P. S.—The undersigned had intended to add that the Law Officers of the Crown might be consulted as to what steps should be taken.

P. M. P.

The powers referred to in the Gold Mining Act of 27-28 Vict., were those vesting the Inspectors in Mining Districts with magisterial powers charged with the enforcement of the law, and sections 25 and 28 of Cap. 93 Consolidated Statutes of Canada refer to the punishment for arson by which any one doing malicious damages to trees or shrubs on private grounds or elsewhere to the extent of twenty cents were liable to fine or imprisonment.

This memorandum appeared to meet with the approval of the Commissioner, Hon. A. Campbell, who added to it the following instructions:—

- (1) Create a gold mining division to embrace the townships.
- (2) Prepare a form to be used as an appendix to such license, making provision as far as possible against danger from fires.
- (3) Instruct Inspector to serve and give him reference to the sections of the 93 chap. Consolidated Stat. quoted by Mr. Partridge.
- (4) In townships where no municipal organization exists, persons may be selected as suggested by Mr. Partridge for the duty he proposes (persons left by lumbermen in charge of their farms would probably be found very suitable men.)

(Sgd.) A. C.

23rd Feb., '67.

No action appears to have been taken at this time, perhaps owing to the pressure of business consequent upon the Confederation of the Provinces consummated on July 1st of that year, (1867) when the Government of Upper Canada was permanently moved to Toronto.

Prevention of Forest Fires.

During the session of 1878 there was enacted the first legislation looking to the suppression, or rather, the prevention of forest fires. This was entitled, "An Act to Preserve the Forests from destruction by fire."

Lt.-Governor
may proclaim
a fire district.

Publication of
fire district.

Revocation.

Fires not to be
started except
for certain
purposes and
in certain
periods.

Precautions to
be taken in case
of clearing
land.

1. The Lieutenant-Governor may, by proclamation made by him from time to time, issued by and with the advice and consent of the Executive Council, declare any portion or part of the Province of Ontario to be a fire district.

2. Every proclamation under this Act shall be published in the *Ontario Gazette*, and such portion or part of the Province as is mentioned and declared to be a fire district in and by the said proclamation, shall, from and after the said publication, become a fire district within the meaning and for the purposes of this Act.

3. Every such portion or part of the Province mentioned in such proclamation shall cease to be a fire district upon the revocation by the Lieutenant-Governor-in-Council of the proclamation by which it was created.

4. It shall not be lawful for any person to set out, or cause to be set out or started, any fire in or near the woods within any fire district between the first day of April and the first day of November in any year, except for the purposes of clearing land, cooking, obtaining warmth, or for some industrial purposes, the obligations and precautions imposed by the following sections shall be observed.

5. Every person who shall, between the first day of April and the first day of November, make or start a fire within such fire district for the purpose of clearing land shall exercise and observe

every reasonable care and precaution in the making and starting of such fire, and in the managing of and caring for the same after it has been made and started, in order to prevent such fire from spreading or burning up the timber and forests surrounding the place where it has been so made and started.

6. Every person who shall between the first day of April and the first day of November, make or start within such fire district a fire in the forest, or at a distance of less than half a mile therefrom, or upon any island for cooking, obtaining warmth, or for any industrial purpose, shall—

(1) Select a locality in the neighborhood in which there is the smallest quantity of vegetable matter, dead wood, branches, brushwood, dry leaves, or resinous trees;

(2) Clear the place in which he is about to light the fire by removing all vegetable matter, dead trees, branches, brushwood and dry leaves from the soil within a radius of ten feet from the fire;

(3) Exercise and observe every reasonable care and precaution to prevent such fire from spreading, and carefully extinguish the same before quitting the place.

7. Any person who shall throw or drop any burning match, ashes of a pipe, lighted cigar, or any other burning substance, or who shall discharge fire-arms within such fire district, shall be subject to the pains and penalties imposed by this Act, if he neglect completely to extinguish before leaving the spot the fire of such match, ashes of a pipe, cigar, wadding of the fire-arm, or other burning substance.

8. Every person in charge of any drive of timber, survey exploring party or of any other party requiring camp-fires, for cooking or other purposes within such fire district, shall provide himself with a copy of this Act, and shall call his men together and cause said Act to be read in their hearing, and explained to them at least once in each week during the continuance of such work or service.

9. All locomotive engines used on any railway which passes through any such fire district or any part of it, shall, by the company using the same, be provided with and have in use all the most approved and efficient means used to prevent the escape of fire from the furnace or ash-pan of such engines, and that the smoke stack of each locomotive engine so used shall be provided with a bonnet or screen of iron or steel wire netting, the size of the wire used in making the netting to be not less than number nineteen of the Birmingham wire gauge, or three sixty-fourths parts of an inch in diameter, and shall contain in each inch square at least eleven wires each way at right angles to each other, that is in all twenty-two wires to the inch square.

10. It shall be the duty of every engine driver in charge of a locomotive engine passing over any such railway within the limits of any such fire district, to see that all such appliances as above-mentioned are properly used and applied so as to prevent the unnecessary escape of fire from any such engine as far as it is reasonably possible to do so.

11. Whosoever unlawfully neglects or refuses to comply with the requirements of this Act in any manner whatsoever, shall be liable upon a conviction before any justice of the peace to a penalty not exceeding fifty dollars over and above the costs of prosecution, and

Precautions
in case of cook-
ing, etc.

Precautions in
case of
matches, burn-
ing sub-
stances, etc.

Act to be read
to employees
by heads of
surveys, lum-
berers, etc.

Precautions
as to locomo-
tives.

Duty of
engine drivers.

Penalty for
non-compli-
ance with this
Act.

in default of payment of such fine and costs, the offender shall be imprisoned in the common gaol for a period not exceeding three calendar months; and any railway company permitting any locomotive engine to be run in violation of the provisions of the ninth section of this Act shall be liable to a penalty of one hundred dollars for each offence, to be recovered with costs in any court of competent jurisdiction.

Time for bringing action.

12. Every suit for any contravention of this Act shall be commenced within three calendar months immediately following such contravention.

Disposal of fines.

13. All fines and penalties imposed and collected under this Act shall be paid one-half to the complainant or prosecutor and the other half to Her Majesty for the public use of the Province.

Government agents to enforce this Act.

14. It shall be the special duty of every Crown Land agent, Woods and Forest agent, Free Grant agent, and bush ranger, to enforce the provisions and requirements of this Act, and in all cases coming within the knowledge of any such agent or bush ranger to prosecute every person guilty of a breach of any of the provisions and requirements of the same.

Act not to interfere with right of action for damages occasioned by fire.

15. Nothing in this Act contained shall be held to limit or interfere with the right of any party to bring and maintain a civil action for damages occasioned by fire, and such right shall remain and exist as though this Act had not been passed.

Under this Act the following "Fire Districts" were created.

DESCRIPTION OF "FIRE DISTRICTS" UNDER CAP. 23 OF THE STATUTES OF ONTARIO.

District No. 1.—Commencing at a point on the north shore of Lake Huron where Provincial Land Surveyor Albert P. Salter's meridian line between ranges numbers twenty-one and twenty-two west intersects the water's edge, said point being the southwest angle of the Township of Plummer; thence easterly, following the turnings and windings of the shore along the water's edge of Lake Huron and the Georgian Bay to the mouth of French River; thence southeasterly, along the easterly shore of the Georgian Bay, and taking in Parry Island, to the northwest angle of the Township of Matchedash; thence southeasterly along the westerly boundaries of the Townships of Matchedash and North Orillia to the southwest angle of North Orillia; thence northeasterly along the southerly boundary of North Orillia to the waters of Lake Couchiching; thence easterly across said lake to the southwest angle of the Township of Rama; thence easterly along the south boundaries of the Townships of Rama, Dalton, Digby and Lutterworth to the northwest angle of the Township of Galway; thence southerly along the westerly boundaries of the Townships of Galway and Harvey to the southwest angle of Harvey; thence easterly along the south boundaries of the Townships of Harvey, Burleigh, Methuen, Lake and Tudor, to the northwest angle of the Township of Elzevir; thence southerly along the west boundary of Elzevir to the southwest angle of said township; thence easterly along the south boundaries of the Townships of Elzevir, Kaladar, Kennebec, Olden, Oso and South Sherbrooke, to the southeast angle of the Township of South Sherbrooke; thence northwesterly along the easterly boundaries of the Townships of South and North Sherbrooke to the southerly boundary of the Township of Lavant; thence northeasterly along the southerly boundaries of the Townships of Lavant and Darling, to the south-easterly angle of the Township of Darling; thence northwesterly along the

easterly boundaries of the Townships of Darling and Bagot to the north-easterly angle of the Township of Bagot; thence southwesterly along the northerly boundaries of the Townships of Bagot and Blithfield, to the easterly boundary of the Township of Brougham; thence northwesterly along the easterly boundaries of the Townships of Brougham, Grattan, Wilberforce and Alice, to the waters of the Upper Allumette Lake; thence northwesterly, following the water's edge of said lake and the Ottawa River to the head of Lake Temiscamingue; thence due north along the boundary, between the Province of Ontario and Quebec to the northern boundary of the Province of Ontario; thence westerly along the said northern boundary to its intersection with the production northerly of Provincial Land Surveyor Albert P. Salter's meridian line between the said ranges numbers twenty-one and twenty-two west, and thence southerly along said meridian line produced to the place of beginning.

District No. 2.—All that part of the said Province lying west of Provincial Land Surveyor Albert P. Salter's meridian line between ranges twenty-one and twenty-two west, near Bruce Mines, in the District of Algoma, and west of the said meridian line produced to the northern boundary of the Province, the said meridian line being the western boundary of the Fire District established by the Proclamation of March 27th, 1878.

It will be observed that this Act applies only to settled districts and portions of the Province under process of settlement, while no provision was made for protection of timber limits not under municipal government, where the losses from fire were frequent and heavy, particularly after lumbering operations and the consequent inflammable debris covering the forest floor.

Fire Ranging System Proposed.

In 1884 the great loss from fire becoming increasingly apparent, Mr. Aubrey White, then chief clerk of the Woods and Forests Branch of the Crown Lands Department, addressed the following memorandum to the Commissioner of Crown Lands.

TORONTO, March 30th, 1885

SIR,—I take the liberty of drawing your attention to the great destruction of the timber wealth of this Province, which is caused mainly by the careless setting out of fire at dangerous points in the forest during the heat or summer by settlers, lumbermen, hunters, explorers and others, which, though of apparently small amount when started, have often become vast conflagrations, laying waste miles of the forest, and destroying untold millions worth of public property.

I am well aware that this matter has for some time been a cause of much anxious consideration to you, and it is not to dwell upon the necessity for taking some action—as that is universally admitted—that I now address you, but to submit for your consideration a plan or system under which much may be done to prevent such numerous and extensive fires as we have witnessed in the past, by exercising some supervision over the public domain, whereby, as far as possible, the starting of fires—except in cases of necessity—may be prevented, and fires which are assuming dangerous proportions may be controlled or extinguished, and generally taking such action as will, with a reasonable expenditure of money, reduce to a minimum the loss of timber by bush fires.

The period of the year during which this supervision would be required—which may be called the dangerous period—is included between the 1st day of May and the 1st day of October, as between these dates the bush, as a rule, is dry and inflammable, and fire runs with great celerity—while dur-

ing the rest of the year, extending from October to May, the ground is covered with snow, or the moisture in the bush is such as to render any extensive fire impossible.

I would, therefore, suggest that during the dangerous period of each year, a certain number of men, to be called Fire Rangers, shall be stationed at points in the licensed and unlicensed lands of the Province, where from settlement, railway construction, lumbering or any other cause, fire is so frequently used as to be a source of danger.

There is great difficulty in arriving at an accurate estimate of the number of men required to protect a section of country, let alone the whole Province, as some limits, owing to the nature of the bush, prevalence of lakes, streams and swamps, sparse settlements, etc., will not require as close supervision as others, therefore it would be well nigh impossible for me here to state the number of men which would be adequate to make the service effective. When we come to place the men, the licensees—who are quite familiar with the topography, etc., of their limits—will be able to give us a fairly correct idea of how many men will be necessary on each limit; thus we will be able to deal satisfactorily with the licensed area—leaving the unlicensed, unsettled, and consequently less exposed parts of the Province to be dealt with by the Department as necessity may arise. I would therefore recommend that each licensee should be notified that these men would be appointed, and invited to state how many men would be required to properly guard his limits, the Department having the right, after consultation with the license-holder affected, either to decrease or increase the number suggested, should it be thought expedient to do so.

The next point, and a most important one, is the selection of the men, as unless we get active, energetic men, of cool temper and good judgment, we shall not make the scheme a success; but in addition to the possession of the above qualities, they must have a thorough bush training, and be quite familiar with the limit on which they are stationed. Such men will know the various settlers upon a limit, their residences, habits—whether careless or the reverse—the parts of the limits which are most exposed or inflammable and need the closest watching, and above all, they will have practical ideas as to the proper steps to take in order to control or suppress a bush fire. Bearing all this in mind, and the necessity of having some further and more direct supervision over the men—scattered over an immense area as they will be—than could be exercised by the Department, I think the selection of them should also be left with the various licensees, as they will most certainly know the men best qualified to fulfill the duties of the position, the Department, of course, reserving the right to reject or remove any man considered unfit for the position, either from incapacity or through harassing of settlers, for where settlement and lumbering are going hand in hand, as they must do in this Province, it is of the utmost importance that no friction should arise between the settler and licensee, as should ill blood between the two classes be created, the whole system would prove unsuccessful, nor could any be devised which would preserve the forest if settlers were moved by malice to destroy it. The whole system presumes a good understanding between settler and licensee, and as I know that lumbermen now fully appreciate the folly and danger of quarrelling with settlers, I see no objection to allowing them to select the men, and what is of great importance is this, that these men feeling they owe their appointments to the licensee, and being under his supervision, there is every reason to believe that they will be more watchful and diligent than if they were only supervised by and responsible to the Department of Crown Lands.

The next point is the expense of the system and how it should be borne. It seems to me that the interests of the Government and the licensee should be regarded as equal in this matter, and that the whole thing being in the nature of an experiment, each, for the present, should bear half of the expenses not only of the Rangers but of suppression of fires and costs of prosecution under the Fire Act. The men should receive the following rates of pay, subject to reduction or increase as experience is gained: Ranger in charge of limit, three dollars per day; assistants, two dollars per day, which amount should be understood to cover board and all expenses, except such as are caused by special emergencies or enforcement of the Fire Act; they should be paid as their necessities required, which payments, and all expenses incurred, should be made upon application, forwarded through and recommended by the licensee. At the close of the season they should send in a proper account, upon a form supplied from here, and duly attested by affidavit, showing the number of days on duty and any special expenses incurred, with vouchers for the same, forwarding this account through the licensee, who should recommend it for payment. The licensee should then be debited with half the total expense, which should remain a charge on the limit, payable before renewal of license.

The clothing of the men with authority is the next consideration. This can be done by appointing them Bush and Fire Rangers and instructing them from here as such, which will make them ex-officio officers to enforce the provisions of the Fire Act, under section 14 of the said Act. This will arm them with all necessary authority, and lend official prestige to them which will be found a valuable factor in dealing with settlers. This completes the scheme so far as its creation and organization is concerned, and we will now discuss their action in the field.

In instructing them from here it is not possible to frame rules which shall meet every emergency, and as they are presumed to be practical men it will be well to leave them plenty of latitude to deal with each case in such manner as their knowledge and presence on the spot may suggest; at the same time it will be only proper that I should indicate briefly some of the more important of the duties which I think would devolve upon them.

Upon the ranger in charge of the limit will devolve the responsibility for any action taken in preventing or suppressing fires, and the expenses incurred in connection therewith. He will be furnished with a diary, in which he must enter the movements of himself and assistants, anything of interest or importance occurring on the limit, the the nature of the country and timber where they travel, etc., so that the Department and licensee may be fully informed about the limit; its topography and the timbered portions of it. This diary must be sent in at the end of the season, and should be accompanied with any report or recommendation in the direction of improving the scheme, which experience may suggest. Having been supplied with a number of posters of the Fire Act, they will, on reaching the scene of their duties, proceed to post them up in public and conspicuous places, and being also supplied with copies of the Act in pamphlet form, they will distribute these among settlers, residents or frequenters of the limit, explaining to them the provisions of the Act, calling particular attention to the penalty for the infraction thereof, and they will endeavor to inculcate a spirit of care and caution in setting out and preventing the spread of fires, informing them of their headquarters, inviting their co-operation and assistance to punish those who wilfully or carelessly disregard The Act, and doing everything, in short, to secure the sympathy, confidence and support of the settlers. By doing these things, and keeping continually on the move, they will impart a thorough knowledge of the Fire Act, and keep alive an active interest in its enforcement.

In travelling through a limit where the country is broken or circumstances will permit, an elevated position should occasionally be sought, so that a view of the surrounding country can be obtained, by which they will ascertain the locality of any fire, and in the event of such being discovered where there is not a settler, or if it should be assuming proportions which would indicate danger, they should proceed at once to the spot and take steps to extinguish or control it.

Where settlers are living in a pine country, and require to burn their fallows or choppings during a dry period, the Rangers should impress upon them the necessity of choosing a calm evening to set out fire, and if the surroundings are dangerous, he should ask to be notified of the time, so that he might be on the spot and prepared to call in assistance if the fire should be spreading.

In the event of an emergency arising, that is to say, should a fire assume such proportions as to be beyond control of the Ranger and his assistants, or should the springing up of a wind render it advisable that a fire should be promptly extinguished, the superintending Ranger should be instructed that he may engage such outside assistance as will enable him to accomplish this object, paying the men employed reasonable wages, such as ordinarily prevail in the locality. He should also at once advise the licensee and the Crown Lands Department, by telegraph, if possible, so that some one to represent one or both should be sent, if thought desirable. On suppression of the fire the Ranger in charge should report all the facts to the Department, accompanying his report with pay list of the men employed, shewing number of days, names and rates paid. These should be sent through the licensee, who should recommend them for payment, if reasonable, the Department then paying the expense and debiting half to the licensee.

The foregoing is a sketch of the organization, rates of pay and duties of the Fire Ranging force proposed to be created, which can be modified or improved as experience is gained. I have not thought it necessary to describe minutely the various modes of combating bush fires, as the necessary steps depend largely upon the extent of the fire, state of the weather, nature of the localities and timber, and the persons on the ground who will be familiar with these points can best be left to deal with each fire as it occurs. What I desire is to obtain your approval of the principle of establishing some body to prevent the fearful destruction that has been going on, and I think I may fairly claim that the scheme I have now suggested is simple, will be far-reaching and effective, and comparatively inexpensive. You are aware that last year we tried the experiment of sending one of our ordinary Ranging staff on Mr. McLaren's limits, and another on McLachlin Brothers, keeping them there during the summer, and that these gentlemen have written testifying to the good effect, thanking the Department, and sending their cheques for half the expense.

In conclusion, I would suggest that an appropriation of five thousand dollars be taken for this service this season, and I am well satisfied that once the scheme is put in practical operation, and its good effects are seen and understood, all criticism will be disarmed and no exception will be taken to a much larger appropriation next year.

I have the honor to be,

Sir,

Your obedient servant,

AUBREY WHITE.

Circular to Limit-Holders

The course recommended by Mr. White was approved by the Commissioner, Hon. T. B. Pardee, and the same year the following circular was sent to limit-holders throughout the Province.

The Commissioner of Crown Lands, feeling the importance of creating some better organization for preventing the destruction of the forest by fire, has approved of a scheme, the principal points of which are herein stated to you, so that you may, should the position of your limits make it desirable, avail yourself of its advantages.

It is proposed that during the dangerous period, say from the first day of May to the first day of October in each year, there shall be placed on such limits as are exposed to danger a man or men who will be empowered and instructed to use every endeavor to prevent and suppress fires in every way possible, and the ranger who is placed in charge of a limit will be authorized to engage whatever help may be necessary to cope with a dangerous fire where prompt action is necessary; these men will be supplied with copies of the "Fire Act," and instructed to post them up in public and conspicuous places, to visit each person resident on the limit and give them, if thought advisable, a copy of the Act, explaining to them its provisions, penalty for its infraction, etc., and to endeavor to enlist their assistance and sympathy to make the Act effective.

The Department will leave the limit-holder to suggest the number of men who should be placed on his limit, and as it is of all things necessary that practical bushmen of good judgment and well acquainted with the limit should be selected, he, the limit-holder, will nominate the man to be placed in charge of the limit and his subordinates, if any, the Department reserving the right to limit the number of men to be employed on any limit and also to reject or remove any man whom it finds unfitted to discharge the duties of the position.

It is hoped that limit-holders will recognize the necessity for recommending men of good judgment and cool temper, who, while fully discharging their duties, will not harass or annoy settlers or others, as, if an animus is created in the breasts of the settlers the scheme will undoubtedly fail to effect the result expected. Limit-holders will be expected to exercise supervision over these men and see that they thoroughly and effectually perform their duties.

With respect to remuneration, the Department thinks that the man in charge of a limit should be paid three dollars a day, which should cover board and ordinary expenses, and where subordinates are required, that suitable men can be obtained at two dollars per day, which should also cover board and ordinary expenses; the men will be appointed bush and fire rangers and instructed from here so as to clothe them with authority under section 14 of the Fire Act, and a copy of the instructions will be furnished each limit-holder.

As the limit-holder is reaping a large proportion of the benefit, it is intended that he should bear one-half of the cost of men and expenses which may be incurred under this scheme.

The Department will pay wages and expenses and charge to each limit-holder his proportion, which will be made a charge upon the limit, and an account will be rendered at the close of the season, when prompt payment must be made.

Should you desire to avail yourself of this scheme you will at once address a letter to the Department to that effect, stating the limits you wish

protected, the number of your license for current season, the number of men you would recommend to be employed, and submit a list of those you would recommend for appointment on your limits.

THOS. H. JOHNSTON,
Assistant Commissioner.

DEPARTMENT OF CROWN LANDS,
(Woods and Forests Branch,) April, 1885.

Results of Fire Ranging.

The results of this action were highly satisfactory to all concerned, as appears from the annual report of the Commissioner of Crown Lands for 1885, which contains the following with regard to the first season's experience of the fire ranging system.

"Under instructions from the Department thirty-seven men were placed in the field and kept on duty between the 1st day of May and the 1st day of October.

"The effect of their presence has been excellent. Fires were suppressed which otherwise might have become vast conflagrations, causing incalculable losses. Persons wantonly violating the provisions of the 'Fire Act' were promptly brought to justice and fined, and a general and strong interest in the direction of preventing the starting and spread of bush fires was created and kept alive.

"At the close of the season the licensees expressed their great satisfaction at the benefits resulting from the experiment, and urged its continuance and extension.

"The total cost of the service for 1885 was \$7,911, of which sum one-half has been refunded by the licensees, leaving the net cost of this service to the Department to be \$3,955,50."

The system once adopted was speedily extended. In 1886, 45 men were employed as rangers, in 1887 the number was increased to 55, in addition to about 100 who were called on to give temporary assistance in fighting fire. The season was an exceptionally dry and dangerous one, so that the efficiency of the system in checking the spread of fires, which would otherwise have covered a much wider extent of territory, was thoroughly tested. The report of the Commissioner of Crown Lands for that year thus refers to the working of the system:—

"There is no doubt that the presence of the Rangers, and the prompt and active measures taken by them, materially prevented, and substantially reduced the losses—not only so but the Licensees were supplied with reliable information as to the quantity of timber damaged, its situation, and the force necessary to handle it this season before the grubs had time to seriously damage it, by which an enormous sum was saved to the Province and the Licensees."

Cost of the Service.

The number of fire rangers employed and the cost of service has continued steadily on the increase as a larger proportion of the limit-holders have realized the benefits of the system and availed themselves of its operation. In 1891 the number of rangers on duty had increased to 98 and the total cost of the service to \$20,053. In 1896 sixty license-holders took advantage of the system, employing 160 rangers, the total expenditure being \$31,396 which included \$1,969 for fire-ranging on Crown Lands not under license,

it having been found necessary to put the system in force over a large area of Crown territory overrun with gold mining prospectors. The number of license-holders who made application to have rangers put on duty upon their limits in 1897 was 69, in which season 179 rangers were employed on timber limits, in addition to 12 detailed for service upon Crown property. During the season of 1898, 195 rangers were on duty on licensed lands, with the result that notwithstanding the long continued drought which prevailed, the losses by fire on the territory under their supervision were insignificant. Eleven fire rangers were also employed on the Crown domain, whose services proved equally effective, as no extensive fires occurred in the area thus protected.

TREE PLANTING ON HIGHWAYS.

The Ontario Legislature in 1871 passed "An Act to encourage the planting of trees upon the highways in this Province and to give a right of property in such trees to the owners of the soil adjacent to such highways" which forms the basis of the existing law on the subject. The principal clauses are as follows:

1. "For the purposes of this Act, every shade tree, shrub and sapling now growing on either side of any highway in this Province, shall upon, from and after the passing of this Act, be deemed to be the property of the owner of the land adjacent to such highway opposite to which such tree, shrub or sapling is."

Ownership in Trees.

2. Any person owning land adjacent to any highway may plant trees, shrubs or saplings on the portion thereof contiguous to his land; but no tree, shrub or sapling so planted shall be so planted that the same may be or become a nuisance in the highway, or obstruct the fair and reasonable use of the same, every tree, shrub or sapling so planted in the highway shall for the purposes of this Act be deemed to be the property of the owner for the time being of the land whose owner planted the same."

Municipal Control.

Municipal councils were given control over the removal of trees, where it became necessary, and a penalty of \$25 was imposed for the injury or destruction of roadside trees. Power was given to municipal councils to expend money in the planting of shade and ornamental trees, or to make money grants to individuals or associations for the same purpose. It was provided that the first two sections of the Act given above should not apply to incorporated cities, towns and villages, unless the council should first pass a by-law making them applicable thereto.

Bonus for Tree Planting.

This Act was superseded by the Ontario Tree Planting Act of 1883, which, in addition to vesting the ownership of trees planted or growing on the highway in the proprietor of the adjacent land, provided for the payment out of municipal and Provincial funds of bonuses for tree-planting. It enacted that the council of any municipality might pass a by-law for paying out of municipal funds a bonus or premium not exceeding twenty-five cents for each ash, basswood, beech, birch, butternut, cedar, cherry,

chestnut, elm, hickory, maple, oak, pine, sassafras, spruce, walnut or whitewood tree planted on the highway, or on any boundary line between farms or within six feet of such boundary. The municipality was entitled to be recouped by the Provincial Treasurer to the amount of one-half the bonus paid on such trees as at the expiration of three years remained alive, healthy, and of good form, a sum of \$50,000 being appropriated by the Act and set apart as a fund for that purpose.

This measure remained in force until 1896, when it was repealed as a result of an investigation made by the Bureau of Forestry as to its operation. It was found that very few of the municipalities of the Province had availed themselves of its provisions, so that after it had been for nine years in full operation, only \$4,308.78, or less than one-tenth of the fund appropriated had been expended, and that for various reasons it had failed to commend itself to the public in most of the localities where a trial had been made. This shortcoming combined with the fact that under any circumstances, the planting of trees in isolated lines, while contributing to the beauty of the landscape, secures none of those practical advantages attained by their growth in masses as in the original forest, induced the Legislature to effect another change in the law. The measure substituted for the Act of 1883 retained and extended the principle of vesting the ownership of roadside trees in adjoining lot owners, making it applicable to all municipalities, without its adoption by special by-law being necessary in the

Provincial Bonus Abolished.

case of urban municipalities. While the Government bonus on tree planting was abolished, the municipalities were authorized to grant municipal bonuses in encouragement of tree planting, provided they saw fit to do so. The following is the full text of the Act:—

1. A person owning land adjacent to any highway, public street, lane, alley, place or square in this Province may plant trees on the portion thereof contiguous to his land, but no tree shall be so planted that the same is or may become a nuisance in the highway, or other public thoroughfare, or obstruct the fair and reasonable use of the same.

2. Any owner of a farm lot may, with the consent of the owner or owners of adjoining lands, plant trees on the boundaries of the adjoining lot.

3. Every tree so planted on such highway, street, lane, alley, place, or square, shall be deemed to be the property of the owner of the lands adjacent to such highway, street, lane, alley, place or square, and nearest to such tree, and every such tree so planted on a boundary line aforesaid shall be deemed to be the common property of the owners of the adjoining farms or lots.

4. Every growing tree, shrub or sapling whatsoever, planted or left standing on either side of a highway for the purposes of shade or ornament shall be deemed the property of the owner of the land adjacent to the highway and nearest to such tree, shrub or sapling. R. S. O., 1887, c. 201, s. 3.

3.—(1) The council of any municipality may pass a by-law for paying out of municipal funds a bonus or premium not exceeding twenty-five cents for each and every ash, basswood, beech, birch, butternut, cedar, cherry, chestnut, elm, hickory, maple, oak, pine, sassafras, spruce, walnut, or whitewood tree, which shall, under the provisions of this Act be planted within such municipality on any highway, or on any boundary line of farms as aforesaid, or within six feet of such boundary.

(2) Such by-law may further provide for the appointment of an inspector of trees so planted; for their due protection against injury and against

removal by any person or persons, including the owner, excepting as authority may be given therefor by special resolution of the council; for the conditions on which bonuses may be paid; and generally for such regulations as are authorized by subsections 20 and 20a of section 479 of The Consolidated Municipal Act, 1892. R.S.O., 1889, c. 201, s. 4.

4. The inspector shall make to the council one report for each year, if required to do so, giving the names of all persons entitled to any bonus or premium under the by-law, the number of trees of each species planted, and the amount of bonus or premium to which each person is entitled, and certifying that the trees have been planted for a period of three years, and that they are alive, healthy and of good form; and upon the adoption of such report the bonuses or premiums shall be paid; provided that in no case shall the council be liable to pay a larger sum in respect of trees planted under this Act than would be payable if the same had been planted at a distance of thirty feet apart, and in no case shall a bonus be granted where the trees are less than fifteen feet apart. R.S.O. 1887, c. 201, s. 5; 53 Vic. c. 60, s. 1.

5. Where a municipality has prior to the passing of this Act passed a by-law under the authority of section 4 of The Ontario Tree Planting Act for granting bonuses for tree planting and has paid or has become liable under the said by-law for the payment of any premiums or bonuses with respect to trees planted prior to the passing of this Act, the Treasurer of the Province, out of any sum which may be voted by the Legislature for that purpose, upon receiving a copy of the inspector's report, certified by the reeve and clerk, may recoup to the treasurer of the municipality one-half of the sum paid by the municipality under the said by-law, the said report to be forwarded to the Treasurer on or before the first day of November in each year.

6.—(1) Any person who ties or fastens any animal to or injures or destroys a tree planted and growing upon any road or highway, or upon any public street, lane, alley, place or square in this Province (or upon any boundary line of farms, if any such bonus or premium as aforesaid has been paid therefor), or suffers or permits any animal in his charge to injure or destroy, or who cuts down or removes any such tree without having first obtained permission so to do by special resolution of the council of the municipality, shall, upon conviction thereof before a justice of the peace, forfeit and pay such sum of money, not exceeding \$25 besides costs, as such justice may award, and in default of payment, the same may be levied on the goods and chattels of the person offending, or such person may be imprisoned in the common gaol of the county within which the municipality is situate, for a period not exceeding thirty days.

(2) One-half of such fine shall go to the person laying the information, and the other half to the municipality within which such tree was growing. R.S.O., 1887, c. 210, s. 8.

7. Any person who ties or fastens any animal to, or injures or destroys any tree growing for the purposes of shade or ornament upon any boundary line between farms or lots, or who suffers or permits any animal in his charge to injure or destroy, or who cuts down or removes any such tree, without the consent of the owner or owners of such tree, shall be subject to the like penalties and liable to be proceeded against and dealt with as provided in the preceding section. R.S.O., 1887, c. 201, s. 9.

8. The council of every municipality may pass by-laws:

- (1) To regulate the planting of trees upon the public highways;
- (2) To prohibit the planting upon the public highways of any species of trees which they may deem unsuited for that purpose;

(3) To provide for the removal of trees which may be planted on the public highway contrary to the provisions of any such by-law. R.S.O., 1887, c. 201, s. 10.

9. The Ontario Tree Planting Act and the Act passed in the 53rd year of Her Majesty's reign, chaptered 60, are repealed.

FOREST RESERVES.

The undue extent to which deforestation has been carried in the frontier counties of Ontario, and the prospect of the extension of similar conditions to the Northern regions, renders the problem of forest preservation one of increasing urgency. The idea that a considerable proportion of the land, including especially the non-arable tracts, should be maintained in perpetual forest, yielding its periodical harvest of timber as an essential economic factor of national prosperity, had its advocates from time to time among our public men. But the liability of the woods to destruction by fire with the advance of settlement, and the general though unfounded belief that only one crop of pine could be secured from the lands, for some time strongly militated against any comprehensive action in the direction of forest preservation. The scientific aspects of the question, however, were beginning to be studied and understood by a few people, and appreciating the growing importance of the subject and the need of popular education as to the value of maintaining a due proportion of woodland, the Ontario Government in 1883 appointed Robert W. Phipps to the position of Clerk of Forestry.

Bureau of Forestry.

As originally laid down, and for some years afterwards, the work was almost purely of an educational character, the publications issued being principally intended to rectify conditions in the cleared and cultivated portions of the province, where the remaining portions of the original forest are in private hands, and to show the need and desirability of replanting. At the same time the larger aspect of the question was not overlooked.

The office was at first attached to the Department of Agriculture, but after Mr. Phipps' death, and on the appointment of the present incumbent, a change was made in 1895 by which its scope was considerably extended. It was transferred from the Department of Agriculture to that of Crown Lands, and connected more directly with the work of administration. The Bureau of Forestry, as thus reconstituted, in place of devoting its main efforts to the dissemination of information among farmers and the formation of public opinion with respect to reforestation on private lands, has been entrusted with the preliminary investigations in connection with the forestry policy now undertaken in the management of considerable tracts of the Crown domain.

Algonquin National Park.

The first step in the direction of a policy of establishing permanent timber reservations was taken by the Ontario Government in 1893, in the setting apart of the Algonquin National Park. The first suggestion of the project was offered by Alexander Kirkwood of the Crown Lands Department, who, in a memo dated December 21st, 1885, addressed to the Hon. T. B. Pardee, Commissioner of Crown Lands, strongly urged the setting aside of such a reservation embracing the head waters of the Muskoka, Madawaska, Petewawa, and other streams. The matter was considered and

preliminary investigations set on foot to ascertain the suitability of the territory indicated for park purposes. Some delay was caused by the ill-health of the Commissioner, which resulted in his death in 1889. Hon. A. S. Hardy who succeeded to the position, appointed a Commission comprising Aubrey White, Assistant Commissioner of Crown Lands, Archibald Blue, Director, of Mines, Alex Kirkwood, Senior Officer of Lands Branch, Department of Crown Lands; James Dickson, Inspector of Surveys, and Robert W. Phipps, Clerk of Forestry, to enquire into the fitness of the territory under consideration for the purpose of a forest reservation and national park. The report of the Commissioners was presented to the Legislature during the session of 1893, recommending the setting apart of a compact tract of land in the district of Nipissing, south of the Mattawa River and Georgian Bay, almost a parallelogram in shape and comprising eighteen townships. An Act embodying the recommendations of the Commissioners, withdrawing this area from sale or settlement and constituting it a national park and forest reservation was adopted. The following year a considerable addition was made to the original area, bringing the total extent of the park up to 1,109,383 acres. The whole district is under timber license but as the Act setting it apart provides that only pine shall be cut, the operations of the limit-holders cannot seriously detract from its forest character.

Forestry Commission.

In June, 1897, at the instance of the Clerk of Forestry, a Royal Commission consisting of E. W. Rathbun, President of the Rathbun Company, Deseronto, lumberman; John Bertram, President of the Collins Inlet Lumber Company, Toronto, lumberman; J. B. McWilliams, Peterborough, Superintendent of Forest Rangers; Alex Kirkwood, Chief Clerk of Lands Branch, Crown Lands Department, and Thomas Southworth, Clerk of Forestry, were appointed to investigate and report on the subject of restoring and preserving the growth of white pine and other timber trees upon lands in the Province, which are not adapted for agricultural purposes or for settlement. After personally investigating considerable tracts of country and familiarizing themselves with the conditions prevailing in many lumbered over and fire swept areas of non-agricultural land they presented a preliminary report on the 10th of December, 1897, which offered the following recommendations:

1. That the present system of fire ranging inaugurated by the Government in 1886 be extended so as to be compulsory on all the holders of timber berths and that all unlicensed timber land contiguous thereto be also protected by rangers employed by the Government. That all fire rangers be subject to the inspection and control of the Department of Crown Lands.
2. That the officials of the Hudson's Bay Company be asked to co-operate with the Government in preparing and printing fire proclamations in the language of the Indians of the Northern Districts to be posted along the canoe routes throughout the territory.
3. That for all unworked limits on which the ground rent shall be two years in default on the termination of the present license year, the license shall not be renewed, but that the berths be held by the Crown as forest reserves.
4. That the license-holders be not allowed to cut any trees for logs smaller than will measure twelve inches across the stump two feet from the ground unless under special forest conditions with the sanction and under the supervision of the district forest ranger.
5. That the Government take power by Order-in-Council to withdraw from sale or location and set aside to be kept in permanent Crown forest

reserve, such areas of territory as are generally unsuitable for settlement and yet valuable for growing timber.

In accordance with these recommendations, the following Act enabling the Government to set apart permanent Forest Reserves, from time to time, was passed by the Legislature in 1898:—

Forest Reserves Act.

1. The Lieutenant-Governor-in-Council shall have power to set apart from time to time such portions of the public domain as may be deemed advisable for the purposes of future timber supplies, but subject to such regulations as may be adopted under the provisions of section 4 of this Act.

2. Such tracts of land so reserved shall, by proclamation in "The Ontario Gazette," be declared to be permanent Crown Forest Reserves.

3. From and after the date of such proclamation no lands within the boundaries of such reserves shall be sold, leased or otherwise disposed of, and no person shall locate, settle upon, use or occupy such lands, or hunt, fish, shoot, trap or spear or carry or use firearms or explosives within or upon such reserves.

4. Such reserves shall be under the control and management of the Department of Crown Lands, and the Lieutenant-Governor-in-Council shall have power to frame regulations for the protection, care and management of the said Crown Forest Reserves.

5. Such regulations shall be published for four consecutive weeks in "The Ontario Gazette" and shall immediately thereafter have the force of law as if herein enacted, and shall be laid before the Legislative Assembly within fifteen days after its first meeting thereafter.

6. Any violation of any provisions of this Act or of any regulation made thereunder shall subject the offender, in addition to any other remedy, to a penalty of not more than fifty dollars and costs, and in default of payment thereof to imprisonment for a period of not exceeding six months, with or without hard labor, unless the said penalty and costs (if costs are imposed) are sooner paid, and the offender shall be liable for all damages resulting from any such violation to be recovered in any court of competent jurisdiction.

7. Any prosecution for a violation of this Act or any regulation made thereunder may be had under "The Ontario Summary Convictions Act" before any justice or justices of the peace having jurisdiction where the offence was committed.

8. This Act may be cited as "The Forest Reserves Act."

Under this legislation, the following Forest Reserves have been set apart, and an adequate staff of rangers to protect the timber has been placed in each:

Temagami	5,900	square miles.
Mississaga	3,000	" "
Nepigon	7,300	" "
Eastern	100	" "
Sibley Township	100	" "



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